

ms. 28741
John W. Johnson
Bible Book
and been in a room for over 100 years

Patent Erasable Surface.

Patented October 24th, 1865.

USE A SOFT PENCIL, AND ERASE WITH MOISTURE.

Harrison G. Dyar
1885-86

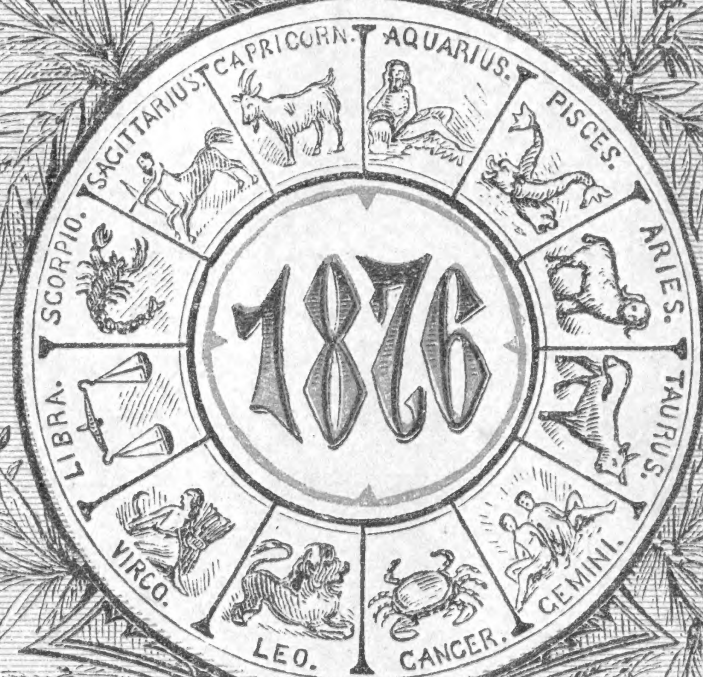
H. G. Dyar.
Catalogue of described caterpillars
Blue Book.

Descriptions begun, September, 1882.

Blue
Book

BB

THE
STANDARD
DIARY



PUBLISHED
FOR
THE TRADE

Copyright, 1874, by Cambridgeport Diary Company.

Calendar.

1876.

	S	M	T	W	T	F	S		S	M	T	W	T	F	S
Janu'y.	..	..	..	..	..	..	1	July.	..	..	..	..	..	..	1
	2	3	4	5	6	7	8		2	3	4	5	6	7	8
	9	10	11	12	13	14	15		9	10	11	12	13	14	15
	16	17	18	19	20	21	22		16	17	18	19	20	21	22
	23	24	25	26	27	28	29		23	24	25	26	27	28	29
	30	31	..	..	..	..	..		30	31	..	..	..	..	..
Febr'y.	..	..	1	2	3	4	5	August.	..	..	1	2	3	4	5
	6	7	8	9	10	11	12		6	7	8	9	10	11	12
	13	14	15	16	17	18	19		13	14	15	16	17	18	19
	20	21	22	23	24	25	26		20	21	22	23	24	25	26
	27	28	29	..	..	..	..		27	28	29	30	31	..	..
March.	..	..	..	1	2	3	4	Sept'r.	..	..	..	..	..	1	2
	5	6	7	8	9	10	11		3	4	5	6	7	8	9
	12	13	14	15	16	17	18		10	11	12	13	14	15	16
	19	20	21	22	23	24	25		17	18	19	20	21	22	23
	26	27	28	29	30	31	..		24	25	26	27	28	29	30
April.	..	..	..	..	..	..	1	Oct'r.	..	..	..	..	..	..	..
	2	3	4	5	6	7	8		1	2	3	4	5	6	7
	9	10	11	12	13	14	15		8	9	10	11	12	13	14
	16	17	18	19	20	21	22		15	16	17	18	19	20	21
	23	24	25	26	27	28	29		22	23	24	25	26	27	28
	30	..	..	..	..	..	..		29	30	31	..	..	..	..
May.	..	1	2	3	4	5	6	Nov'r.	..	..	..	1	2	3	4
	7	8	9	10	11	12	13		5	6	7	8	9	10	11
	14	15	16	17	18	19	20		12	13	14	15	16	17	18
	21	22	23	24	25	26	27		19	20	21	22	23	24	25
	28	29	30	31	..	..	..		26	27	28	29	30	..	..
June.	..	..	..	..	1	2	3	Dec'r.	..	..	..	..	..	1	2
	4	5	6	7	8	9	10		3	4	5	6	7	8	9
	11	12	13	14	15	16	17		10	11	12	13	14	15	16
	18	19	20	21	22	23	24		17	18	19	20	21	22	23
	25	26	27	28	29	30	..		24	25	26	27	28	29	30
									31	..	..	..	..	..	..

RATES OF POSTAGE.

POSTAL CARDS, costing 1 cent each, on which short communications may be written, can be purchased at any post office and sent to any part of the United States or Dominion of Canada.

LETTERS TO ANY PART OF THE UNITED STATES or Dominion of Canada, 3 cents for each 1-2 ounce, or part thereof.

DROP LETTERS, 2 cents for each 1-2 ounce, at all letter-carrier offices; at other offices 1 cent.

VALUABLE LETTERS may be registered on application, at the office of mailing, and the payment of a registration fee of 8 cents on domestic letters. Fees on foreign letters variable.

TRANSIENT NEWSPAPERS, Periodicals, Pamphlets, Books, Book Manuscripts, Proof Sheets, Blanks, Circulars, Engravings, Articles of Merchandise, Seeds, Cuttings, Roots, Bulbs, and other mailable matter, 1 cent for each 2 ounces or part thereof. Newspaper, Magazine and Music Manuscripts are subject to letter postage.

NEWSPAPERS AND PERIODICALS, mailed from a known office of publication or news agency, and addressed to regular subscribers or news agents, issued weekly and oftener, two cents a pound and fraction thereof; less frequently, three cents a pound and fraction thereof. One copy of a newspaper to each actual subscriber residing within the County where the same is wholly or partly printed and published, FREE, except at letter-carrier offices.

ALL PACKAGES of mail matter not charged with letter postage must be so arranged that the same can be CONVENIENTLY examined by Postmasters; if not, letter postage will be charged.

No PACKAGE will be forwarded by mail which weighs over 4 pounds.

ALL POSTAL MATTER, for delivery within the United States and Dominion of Canada, must be PREPAID by stamps.

LETTERS TO GREAT BRITAIN OR IRELAND, 6 cents for each 1-2 ounce. Prepayment optional, but subject to a fine of 6 cents in addition to postage, if wholly or partly unpaid.

LETTERS TO FRANCE, 9 cents for each 1-2 ounce. Prepayment optional.

LETTERS TO GERMANY, direct, 6 cents; by closed mail, via England, 7 cents for each 1-2 ounce. Prepayment optional. Double rates if unpaid.

POSTAL CARDS may be sent to Germany and Switzerland by adding a 1-cent postage stamp.

Letters to other foreign countries vary in rate according to the route by which they are sent; proper information can be obtained of postmasters.

POSTAL MONEY ORDERS.

MONEY ORDER POST OFFICES are established in most of the large cities and towns, at which orders can be obtained upon any other office, at the following rates of commission:—

On orders not exceeding \$10	. . . . .	5 cents.
Over \$10	" " " " " "	10 "
" 20	" " " " " "	15 "
" 30	" " " " " "	20 "
" 40	" " " " " "	25 "

No single order issued for more than fifty dollars. Parties desiring to remit a larger sum must obtain additional money orders.

FESTIVALS AND FASTS.

Epiphany,	- - - - -	Jan. 6.
Septuagesima Sunday,	- - - - -	Feb. 13.
Quinquagesima (Shrove Sunday),	- - - - -	Feb. 27.
Ash Wednesday,	- - - - -	Mar. 1.
First Sunday in Lent,	- - - - -	Mar. 5.
Saint Patrick,	- - - - -	Mar. 17.
Palm Sunday,	- - - - -	April 9.
Good Friday,	- - - - -	April 14.
Easter Sunday,	- - - - -	April 16.
Low Sunday,	- - - - -	April 23.
Rogation Sunday,	- - - - -	May 21.
Ascension Day (Holy Thursday),	- - - - -	May 25.
Pentecost (Whit Sunday),	- - - - -	June 4.
Trinity Sunday,	- - - - -	June 11.
Corpus Christi,	- - - - -	June 15.
First Sunday in Advent,	- - - - -	Dec. 3.
Christmas Day,	- - - - -	Dec. 25.

CHRONOLOGICAL CYCLES.

Dominical Letters,	- - - - -	B. A.
Epact,	- - - - -	4.
Golden Number,	- - - - -	15.
Solar Cycle,	- - - - -	9.
Roman Indiction,	- - - - -	4.
Julian Period,	- - - - -	6589.

ECLIPSES IN 1876.

In the year 1876 there will be four eclipses; two of the Sun, and two of the Moon.

I. A partial eclipse of the Moon, night of March 9-10. Visible to the world generally, except to Asia and Australia. Occurring as follows:

	NEW YORK.	BOSTON.
Moon Enters Penumbra,	9d. 11h. 1m. A.	9d. 11h. 13m. A.
Moon Enters Shadow,	10d. 0h. 25m. M.	10d. 0h. 37m. M.
Middle of Eclipse,	10d. 1h. 25m. M.	10d. 1h. 37m. M.
Moon Leaves Shadow,	10d. 2h. 25m. M.	10d. 2h. 37m. M.
Moon Leaves Penumbra,	10d. 3h. 49m. M.	10d. 4h. 1m. M.
Magnitude of Eclipse = 0.298. (Moon's diameter = 1.)		

II. An Annular Eclipse of the Sun, March 25th. Visible to North America and Northern Pacific Ocean. To Vancouver Island, it will be nearly central and annular. To the following places, it will be visible, at the times given, as a partial eclipse only:

	Eclipse begins.	Eclipse ends.
Boston,	25d. 4h. 14m. A.	25d. 5h. 52m. A.
New York,	25d. 4h. 0m. A.	25d. 5h. 38m. A.
Chicago,	25d. 2h. 45m. A.	25d. 4h. 38m. A.
Philadelphia,	25d. 3h. 57m. A.	25d. 5h. 31m. A.

III. A partial eclipse of the Moon, Sept. 3; invisible. Visible to the world generally, except to North America and Pacific Ocean.

IV. A total eclipse of the Sun, Sept. 18th; invisible. Visible to Australia and Southern Pacific Ocean.

THE SEASONS.

Spring begins	March 20d. 1h. 2m. a.m.
Summer begins	June 20d. 9h. 23m. p.m.
Autumn begins	Sept. 22d. 11h. 33m. a.m.
Winter begins	Dec. 21d. 5h. 46m. a.m.

Given in Washington time.

MORNING AND EVENING STARS.

MERCURY will be *evening star* about January 28, May 21, and Sept. 17; and *morning star* about March 10, July 8, and October 28. — VENUS will be *evening star* till July 14, and *morning star* the rest of the year. — JUPITER will be *morning star* till May 17, then *evening star* till December 4, and *morning star* again the rest of the year.

JANUARY.

First Quarter, 4th day, 10h. 40m. A.M.
Full Moon, 11th day, 1h. 39m. A.M.
Last Quarter, 18th day, 4h. 5m. A.M.
New Moon, 26th day, 8h. 58m. A.M.

1876.		BOSTON.			NEW YORK.		
		Sun R. & S.	Moon R. & S.	High Water.	Sun R. & S.	Moon R. & S.	High Water.
1	Satur.	r 7 30	9 32	2 26	r 7 25	9 34	11 29
2	S	s 4 39	10 39	3 5	s 4 44	10 40	.....
3	Mon.	r 7 30	11 47	3 47	r 7 25	11 46	0 33
4	Tues.	s 4 41	morn	4 32	s 4 46	morn	1 19
5	Wed.	r 7 30	0 58	5 24	r 7 25	0 56	2 10
6	Thur.	s 4 43	2 13	6 20	s 4 48	2 9	3 6
7	Frid.	r 7 30	3 33	7 26	r 7 25	3 28	4 11
8	Satur.	s 4 45	4 54	8 35	s 4 50	4 48	5 20
9	S	r 7 29	6 11	9 43	r 7 24	6 4	6 29
10	Mon.	s 4 47	7 19	10 48	s 4 52	7 12	7 32
11	Tues.	r 7 29	rises	11 44	r 7 24	rises	8 27
12	Wed.	s 4 49	6 35	0 11	s 4 54	6 39	9 25
13	Thur.	r 7 28	7 53	1 3	r 7 23	7 56	10 12
14	Frid.	s 4 51	9 7	1 50	s 4 56	9 9	10 54
15	Satur.	r 7 27	10 17	2 34	r 7 23	10 17	11 38
16	S	s 4 54	11 24	3 15	s 4 58	11 23	0 0
17	Mon.	r 7 26	morn	3 57	r 7 22	morn	0 44
18	Tues.	s 4 56	0 30	4 42	s 5 1	0 27	1 29
19	Wed.	r 7 25	1 35	5 32	r 7 21	1 31	2 18
20	Thur.	s 4 59	2 40	6 27	s 5 3	2 35	3 12
21	Frid.	r 7 24	3 44	7 23	r 7 20	3 38	4 8
22	Satur.	s 5 1	4 45	8 20	s 5 5	4 38	5 4
23	S	r 7 23	5 41	9 16	r 7 18	5 34	6 1
24	Mon.	s 5 3	6 30	10 8	s 5 8	6 23	6 54
25	Tues.	r 7 21	sets	10 56	r 7 17	sets	7 40
26	Wed.	s 5 6	5 10	11 39	s 5 10	5 15	8 21
27	Thur.	r 7 20	6 18	.....	r 7 15	6 22	9 5
28	Frid.	s 5 8	7 25	0 39	s 5 12	7 27	9 45
29	Satur.	r 7 18	8 32	1 17	r 7 14	8 33	10 20
30	S	s 5 11	9 40	1 55	s 5 15	9 40	10 56
31	Mon.	r 7 16	10 49	2 34	r 7 12	10 47	11 37

FEBRUARY.

First Quarter, 2d day, 9h. 9m. P.M.
Full Moon, 9th day, 1h. 3m. P.M.
Last Quarter, 17th day, 0h. 12m. A.M.
New Moon, 25th day, 1h. 36m. A.M.

1876.

BOSTON.

NEW YORK.

	Sun R. & S.	Moon R. & S.	High Water.	Sun R. & S.	Moon R. & S.	High Water.
1 Tues.	r 7 15	morn	3 14	r 7 11	11 58	.....
2 Wed.	s 5 15	o 1	3 59	s 5 18	morn	o 46
3 Thur.	r 7 13	1 17	4 53	r 7 9	1 12	1 40
4 Frid.	s 5 18	2 35	5 59	s 5 21	2 29	2 45
5 Satur.	r 7 10	3 51	7 12	r 7 7	3 44	3 57
6 S	s 5 20	5 1	8 26	s 5 23	4 53	5 10
7 Mon.	r 7 8	6 o	9 37	r 7 5	5 53	6 23
8 Tues.	s 5 23	6 46	10 38	s 5 26	6 40	7 23
9 Wed.	r 7 6	rises	11 30	r 7 2	rises	8 12
10 Thur.	s 5 25	6 42	.....	s 5 28	6 44	9 1
11 Frid.	r 7 3	7 54	o 37	r 7 o	7 55	9 44
12 Satur.	s 5 28	9 4	1 18	s 5 31	9 3	10 22
13 S	r 7 o	10 12	1 57	r 6 58	10 10	10 59
14 Mon.	s 5 31	11 19	2 36	s 5 33	11 12	11 40
15 Tues.	r 6 58	morn	3 16	r 6 55	morn	o 2
16 Wed.	s 5 33	o 26	4 o	s 5 36	o 21	o 47
17 Thur.	r 6 55	1 32	4 50	r 6 53	1 26	1 37
18 Frid.	s 5 36	2 35	5 48	s 5 38	2 28	2 33
19 Satur.	r 6 52	3 34	6 49	r 6 50	3 27	3 35
20 S	s 5 38	4 26	7 50	s 5 40	4 19	4 35
21 Mon.	r 6 49	5 10	8 49	r 6 47	5 3	5 33
22 Tues.	s 5 41	5 46	9 42	s 5 43	5 40	6 28
23 Wed.	r 6 46	6 16	10 30	r 6 44	6 11	7 15
24 Thur.	s 5 43	sets	11 13	s 5 45	sets	7 56
25 Frid.	r 6 43	6 20	11 51	r 6 41	6 22	8 34
26 Satur.	s 5 46	7 29	o 9	s 5 48	7 29	9 13
27 S	r 6 40	8 39	o 46	r 6 38	8 38	9 52
28 Mon.	s 5 48	9 52	1 25	s 5 50	9 49	10 29
29 Tues.	r 6 37	11 8	2 5	r 6 35	11 4	11 9
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MARCH.

First Quarter, 3rd day, 5h. 4m. A.M.
Full Moon, 10th day, 1h. 28m. A.M.
Last Quarter, 17th day, 8h. 40m. P.M.
New Moon, 25th day, 3h. 28m. P.M.

1876.

BOSTON.

NEW YORK.

	Sun R. & S.	Moon R. & S.	High Water.	Sun R. & S.	Moon R. & S.	High Water.
1 Wed.	r 6 35	morn	2 50	r 6 34	morn	11 59
2 Thur.	s 5 52	o 25	3 40	s 5 53	o 19	o 26
3 Frid.	r 6 32	1 41	4 40	r 6 31	1 34	1 27
4 Satur.	s 5 54	2 51	5 53	s 5 55	2 43	2 39
5 S	r 6 28	3 52	7 9	r 6 28	3 45	3 54
6 Mon.	s 5 57	4 41	8 23	s 5 57	4 35	5 7
7 Tues.	r 6 25	5 18	9 26	r 6 24	5 13	6 12
8 Wed.	s 5 59	5 47	10 21	s 6 o	5 43	7 7
9 Thur.	r 6 22	rises	11 7	r 6 21	rises	7 50
10 Frid.	s 6 1	6 44	11 46	s 6 2	6 44	8 29
11 Satur.	r 6 18	7 52	o 5	r 6 18	7 51	9 10
12 S	s 6 4	9 o	o 43	s 6 4	8 47	9 48
13 Mon.	r 6 15	10 9	1 21	r 6 15	10 5	10 25
14 Tues.	s 6 6	11 17	2 o	s 6 6	11 12	11 3
15 Wed.	r 6 12	morn	2 42	r 6 11	morn	11 48
16 Thur.	s 6 8	o 22	3 27	s 6 8	o 16	o 12
17 Frid.	r 6 8	1 22	4 17	r 6 8	1 15	1 4
18 Satur.	s 6 10	2 17	5 15	s 6 11	2 9	2 2
19 S	r 6 5	3 5	6 18	r 6 5	2 58	3 4
20 Mon.	s 6 13	3 45	7 19	s 6 13	3 39	4 4
21 Tues.	r 6 1	4 17	8 18	r 6 1	4 12	5 3
22 Wed.	s 6 15	4 43	9 10	s 6 15	4 39	5 55
23 Thur.	r 5 58	5 6	9 56	r 5 58	5 3	6 42
24 Frid.	s 6 17	5 26	10 39	s 6 17	5 25	7 24
25 Satur.	r 5 54	sets	11 18	r 5 55	sets	8 o
26 S	s 6 19	7 36	11 57	s 6 19	7 34	8 41
27 Mon.	r 5 51	8 53	o 17	r 5 51	8 49	9 24
28 Tues.	s 6 22	10 11	o 59	s 6 21	10 6	10 6
29 Wed.	r 5 47	11 30	1 44	r 5 48	11 24	10 52
30 Thur.	s 6 24	morn	2 36	s 6 23	morn	11 47
31 Frid.	r 5 44	o 44	3 33	r 5 45	o 37	o 19

APRIL.

First Quarter, 1st day, 11h. 28m. A. M.
 Full Moon, 8th day, 2h. 55m. P. M.
 Last Quarter, 16th day, 3h. 53m. P. M.
 New Moon, 24th day, 2h. 19m. A. M.
 First Quarter, 30th day, 5h. 43m. P. M.

1876.		BOSTON.			NEW YORK.		
		Sun R. & S.	Moon R. & S.	High Water.	Sun R. & S.	Moon R. & S.	High Water.
1	Satur.	r 5 42	i 48	4 39	r 5 43	i 41	i 26
2	S	s 6 27	2 40	5 53	s 6 26	2 34	2 39
3	Mon.	r 5 39	3 20	7 4	r 5 40	3 15	3 49
4	Tues.	s 6 30	3 51	8 9	s 6 28	3 47	4 53
5	Wed.	r 5 35	4 15	9 4	r 5 36	4 12	5 49
6	Thur.	s 6 32	4 37	9 53	s 6 30	4 36	6 39
7	Frid.	r 5 32	4 57	10 36	r 5 33	4 57	7 21
8	Satur.	s 6 34	rises	11 15	s 6 32	rises	7 57
9	S	r 5 28	7 50	11 52	r 5 30	7 46	8 35
10	Mon.	s 6 36	8 59	0 10	s 6 34	8 54	9 16
11	Tues.	r 5 25	10 6	0 49	r 5 27	10 0	9 55
12	Wed.	s 6 38	11 9	1 30	s 6 37	11 2	10 36
13	Thur.	r 5 22	morn	2 15	r 5 24	11 59	11 20
14	Frid.	s 6 41	0 7	3 1	s 6 39	morn	.....
15	Satur.	r 5 19	0 58	3 50	r 5 21	0 51	0 37
16	S	s 6 43	1 41	4 45	s 6 41	1 34	1 32
17	Mon.	r 5 15	2 16	5 43	r 5 18	2 10	2 29
18	Tues.	s 6 45	2 43	6 41	s 6 43	2 38	3 26
19	Wed.	r 5 12	3 7	7 36	r 5 15	3 4	4 20
20	Thur.	s 6 47	3 29	8 27	s 6 45	3 27	5 12
21	Frid.	r 5 9	3 50	9 16	r 5 12	3 49	6 2
22	Satur.	s 6 50	4 10	10 1	s 6 47	4 11	6 47
23	S	r 5 6	4 31	10 46	r 5 9	4 33	7 30
24	Mon.	s 6 52	sets	11 30	s 6 49	sets	8 12
25	Tues.	r 5 3	9 11	.....	r 5 6	9 5	9 0
26	Wed.	s 6 54	10 29	0 39	s 6 51	10 22	9 52
27	Thur.	r 5 0	11 39	1 33	r 5 3	11 31	10 45
28	Frid.	s 6 56	morn	2 31	s 6 53	morn	11 44
29	Satur.	r 4 58	0 37	3 31	r 5 1	0 30	0 17
30	S	s 6 59	1 21	4 35	s 6 55	1 15	1 22
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MAY.

Full Moon, 8th day, 5h. 9m. A.M.
 Last Quarter, 16th day, 8h. 43m. A.M.
 New Moon, 23rd day, 10h. 41m. A.M.
 First Quarter, 30th day, 1h. 5m. A.M.

1876.		BOSTON.			NEW YORK.		
		Sun R. & S.	Moon R. & S.	High Water.	Sun R. & S.	Moon R. & S.	High Water.
1	Mon.	r 4 55	i 55	5 41	r 4 58	i 50	2 27
2	Tues.	s 7 1	2 21	6 43	s 6 57	2 18	3 29
3	Wed.	r 4 52	2 43	7 40	r 4 56	2 41	4 25
4	Thur.	s 7 3	3 3	8 32	s 6 59	3 3	5 16
5	Frid.	r 4 49	3 23	9 18	r 4 53	3 24	6 4
6	Satur.	s 7 5	3 42	10 2	s 7 2	3 44	6 48
7	S	r 4 47	4 4	10 44	r 4 51	4 8	7 29
8	Mon.	s 7 7	rises	11 24	s 7 4	rises	8 6
9	Tues.	r 4 45	8 58	.....	r 4 49	8 52	8 48
10	Wed.	s 7 9	9 58	0 23	s 7 6	9 51	9 31
11	Thur.	r 4 42	10 52	1 7	r 4 46	10 45	10 15
12	Frid.	s 7 12	11 38	1 53	s 7 8	11 31	10 58
13	Satur.	r 4 40	morn	2 39	r 4 44	morn	11 46
14	S	s 7 14	0 15	3 25	s 7 9	0 9	0 10
15	Mon.	r 4 38	0 44	4 14	r 4 42	0 39	1 0
16	Tues.	s 7 16	1 9	5 5	s 7 11	1 5	1 51
17	Wed.	r 4 36	1 31	5 57	r 4 41	1 28	2 41
18	Thur.	s 7 18	1 51	6 49	s 7 13	1 50	3 35
19	Frid.	r 4 34	2 10	7 41	r 4 39	2 10	4 25
20	Satur.	s 7 20	2 31	8 33	s 7 15	2 33	5 17
21	S	r 4 32	2 55	9 24	r 4 37	2 58	6 9
22	Mon.	s 7 22	3 24	10 16	s 7 17	3 28	7 2
23	Tues.	r 4 31	sets	11 9	r 4 36	sets	7 53
24	Wed.	s 7 24	9 21	.....	s 7 18	9 14	8 47
25	Thur.	r 4 29	10 26	0 30	r 4 34	10 19	9 46
26	Frid.	s 7 25	11 16	1 29	s 7 20	11 10	10 41
27	Satur.	r 4 28	11 54	2 27	r 4 33	11 49	11 38
28	S	s 7 27	morn	3 23	s 7 22	morn	0 8
29	Mon.	r 4 27	0 24	4 18	r 4 32	0 21	1 5
30	Tues.	s 7 29	0 48	5 13	s 7 23	0 46	1 59
31	Wed.	r 4 26	1 9	6 8	r 4 31	1 8	2 54

JUNE.

Full Moon, 6th day, 7h. 53m. P.M.
 Last Quarter, 14th day, 10h. 30m. P.M.
 New Moon, 21st day, 5h. 33m. P.M.
 First Quarter, 28th day, 10h. 30m. A.M.

1876.		BOSTON.			NEW YORK.		
		Sun R. & S.	Moon R. & S.	High Water.	Sun R. & S.	Moon R. & S.	High Water.
1	Thur.	r 4 25	i 29	7 1	r 4 31	i 30	3 46
2	Frid.	s 7 31	i 48	7 52	s 7 26	i 50	4 37
3	Satur.	r 4 25	2 9	8 41	r 4 30	2 12	5 26
4	S	s 7 32	2 33	9 28	s 7 27	2 37	6 14
5	Mon.	r 4 24	3 1	10 14	r 4 29	3 7	7 0
6	Tues.	s 7 34	rises	11 0	s 7 28	rises	7 43
7	Wed.	r 4 23	8 47	11 43	r 4 29	8 40	8 25
8	Thur.	s 7 35	9 34	0 4	s 7 29	9 27	9 12
9	Frid.	r 4 23	10 13	0 47	r 4 28	10 7	9 56
10	Satur.	s 7 36	10 45	1 32	s 7 30	10 40	10 37
11	S	r 4 22	11 12	2 16	r 4 28	11 8	11 19
12	Mon.	s 7 37	11 35	2 57	s 7 31	11 32	.....
13	Tues.	r 4 22	11 55	3 40	r 4 28	11 53	0 25
14	Wed.	s 7 38	morn	4 22	s 7 32	morn	1 9
15	Thur.	r 4 22	0 14	5 10	r 4 28	0 14	1 56
16	Frid.	s 7 38	0 32	6 1	s 7 33	0 33	2 47
17	Satur.	r 4 22	0 53	6 55	r 4 28	0 55	3 41
18	S	s 7 39	1 19	7 54	s 7 34	1 23	4 38
19	Mon.	r 4 23	1 51	8 54	r 4 28	1 56	5 39
20	Tues.	s 7 40	2 33	9 57	s 7 34	2 39	6 43
21	Wed.	r 4 23	sets	10 58	r 4 29	sets	7 42
22	Thur.	s 7 40	9 4	11 56	s 7 35	8 57	8 40
23	Frid.	r 4 24	9 49	0 24	r 4 29	9 44	9 39
24	Satur.	s 7 40	10 23	1 20	s 7 35	10 19	10 30
25	S	r 4 24	10 50	2 12	r 4 30	10 47	11 19
26	Mon.	s 7 40	11 13	3 1	s 7 35	11 12	.....
27	Tues.	r 4 25	11 33	3 47	r 4 31	11 33	0 33
28	Wed.	s 7 40	11 53	4 35	s 7 35	11 55	1 22
29	Thur.	r 4 26	morn	5 25	r 4 31	morn	2 11
30	Frid.	s 7 40	0 13	6 18	s 7 35	0 16	3 4
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JULY.

Full Moon, 6th day, 10h. 54m. A.M.
 Last Quarter, 14th day, 9h. 12m. A.M.
 New Moon, 21st day, 0h. 9m. A.M.
 First Quarter, 27th day, 10h. 35m. P.M.

1876.		BOSTON.			NEW YORK.		
		Sun R. & S.	Moon R. & S.	High Water.	Sun R. & S.	Moon R. & S.	High Water.
1	Satur.	r 4 27	0 35	7 12	r 4 32	0 39	3 57
2	S	s 7 40	1 2	8 6	s 7 34	1 7	4 50
3	Mon.	r 4 28	1 35	8 59	r 4 33	1 41	5 44
4	Tues.	s 7 40	2 15	9 51	s 7 34	2 22	6 37
5	Wed.	r 4 29	3 2	10 40	r 4 35	3 9	7 25
6	Thur.	s 7 39	rises	11 26	s 7 33	rises	8 8
7	Frid.	r 4 30	8 48	.....	r 4 36	8 42	8 52
8	Satur.	s 7 38	9 16	0 28	s 7 33	9 11	9 34
9	S	r 4 32	9 39	1 8	r 4 38	9 36	10 13
10	Mon.	s 7 37	9 59	1 48	s 7 32	9 57	10 50
11	Tues.	r 4 33	10 18	2 25	r 4 39	10 17	11 26
12	Wed.	s 7 36	10 37	3 3	s 7 31	10 38	.....
13	Thur.	r 4 35	10 56	3 43	r 4 40	10 58	0 29
14	Frid.	s 7 35	11 19	4 27	s 7 30	11 22	1 14
15	Satur.	r 4 36	11 47	5 19	r 4 41	11 52	2 6
16	S	s 7 34	morn	6 20	s 7 29	morn	3 5
17	Mon.	r 4 38	0 23	7 26	r 4 43	0 29	4 11
18	Tues.	s 7 32	1 9	8 38	s 7 28	1 16	5 23
19	Wed.	r 4 40	2 10	9 47	r 4 45	2 17	6 33
20	Thur.	s 7 31	sets	10 51	s 7 26	sets	7 35
21	Frid.	r 4 42	8 19	11 48	r 4 46	8 14	8 31
22	Satur.	s 7 29	8 48	0 13	s 7 25	8 45	9 24
23	S	r 4 44	9 13	1 2	r 4 48	9 11	10 10
24	Mon.	s 7 28	9 36	1 47	s 7 23	9 36	10 51
25	Tues.	r 4 45	9 56	2 30	r 4 50	9 57	11 34
26	Wed.	s 7 26	10 16	3 12	s 7 21	10 18	.....
27	Thur.	r 4 47	10 39	3 55	r 4 52	10 43	0 42
28	Frid.	s 7 23	11 5	4 43	s 7 19	11 10	1 30
29	Satur.	r 4 49	11 35	5 37	r 4 54	11 41	2 23
30	S	s 7 21	morn	6 35	s 7 17	morn	3 21
31	Mon.	r 4 51	0 12	7 36	r 4 56	0 19	4 21

OCTOBER.

Full Moon,	3rd day,	6h. 12m. A.M.
Last Quarter,	10th day,	5h. 36m. A.M.
New Moon,	17th day,	5h. 13m. A.M.
First Quarter,	25th day,	3h. 10m. A.M.

		BOSTON.			NEW YORK.		
		Sun R. & S.	Moon R. & S.	High Water.	Sun R. & S.	Moon R. & S.	High Water.
1	\$	r 5 57	3 53	9 58	r 5 57	3 55	6 44
2	Mon.	s 5 39	4 59	10 39	s 5 40	4 59	7 24
3	Tues.	r 6 0	rises	11 18	r 5 59	rises	8 0
4	Wed.	s 5 36	5 56	11 55	s 5 37	5 59	8 39
5	Thur.	r 6 2	6 24	0 15	r 6 1	6 29	9 22
6	Frid.	s 5 33	6 59	0 57	s 5 33	7 5	10 6
7	Satur.	r 6 4	7 44	1 45	r 6 3	7 51	10 54
8	\$	s 5 29	8 40	2 37	s 5 30	8 48	11 50
9	Mon.	r 6 6	9 48	3 35	r 6 5	9 55	0 21
10	Tues.	s 5 26	11 4	4 41	s 5 27	11 10	1 28
11	Wed.	r 6 9	morn	5 53	r 6 7	morn	2 38
12	Thur.	s 5 23	0 22	7 1	s 5 24	0 27	3 47
13	Frid.	r 6 11	1 40	8 5	r 6 9	1 43	4 50
14	Satur.	s 5 19	2 55	9 0	s 5 21	2 57	5 45
15	\$	r 6 14	4 8	9 47	r 6 11	4 8	6 34
16	Mon.	s 5 16	5 19	10 32	s 5 18	5 18	7 17
17	Tues.	r 6 16	sets	11 14	r 6 14	sets	7 56
18	Wed.	s 5 13	5 33	11 53	s 5 15	5 38	8 36
19	Thur.	r 6 18	6 3	0 13	r 6 16	6 9	9 21
20	Frid.	s 5 10	6 40	0 56	s 5 12	6 47	10 3
21	Satur.	r 6 20	7 25	1 40	r 6 18	7 32	10 47
22	\$	s 5 7	8 18	2 28	s 5 9	8 25	11 35
23	Mon.	r 6 23	9 18	3 15	r 6 20	9 25	0 0
24	Tues.	s 5 4	10 21	4 5	s 5 6	10 27	0 52
25	Wed.	r 6 25	11 25	5 0	r 6 23	11 30	1 46
26	Thur.	s 5 1	morn	5 55	s 5 4	morn	2 41
27	Frid.	r 6 28	0 30	6 50	r 6 25	0 33	3 35
28	Satur.	s 4 58	1 35	7 40	s 5 1	1 37	4 25
29	\$	r 6 30	2 41	8 29	r 6 27	2 42	5 13
30	Mon.	s 4 56	3 48	9 15	s 4 59	3 47	6 1
31	Tues.	r 6 33	4 58	10 0	r 6 30	4 56	6 46

NOVEMBER.

Full Moon,	1st day,	6h. 47m. P.M.
Last Quarter,	8th day,	0h. 33m. P.M.
New Moon,	15th day,	8h. 4m. P.M.
First Quarter,	23rd day,	11h. 42m. P.M.

		BOSTON.			NEW YORK.		
1876.		Sun R. & S.	Moon R. & S.	High Water.	Sun R. & S.	Moon R. & S.	High Water.
1	Wed.	r 6 34	6 11	10 46	r 6 31	6 8	7 30
2	Thur.	s 4 52	rises	11 30	s 4 55	rises	8 12
3	Frid.	r 6 36	5 38	.....	r 6 33	5 45	9 4
4	Satur.	s 4 49	6 31	0 43	s 4 53	6 38	9 55
5	S	r 6 39	7 39	1 37	r 6 36	7 46	10 49
6	Mon.	s 4 47	8 55	2 35	s 4 50	9 1	11 48
7	Tues.	r 6 41	10 13	3 33	r 6 38	10 18	0 19
8	Wed.	s 4 45	11 30	4 35	s 4 48	11 34	1 21
9	Thur.	r 6 44	morn	5 37	r 6 41	morn	2 23
10	Frid.	s 4 43	0 44	6 37	s 4 46	0 46	3 22
11	Satur.	r 6 46	1 56	7 34	r 6 43	1 57	4 18
12	S	s 4 41	3 6	8 26	s 4 44	3 5	5 10
13	Mon.	r 6 49	4 16	9 15	r 6 45	4 14	6 1
14	Tues.	s 4 39	5 26	10 1	s 4 43	5 22	6 47
15	Wed.	r 6 52	6 35	10 45	r 6 47	6 30	7 30
16	Thur.	s 4 37	sets	11 29	s 4 41	sets	8 11
17	Frid.	r 6 54	5 19	.....	r 6 50	5 26	8 57
18	Satur.	s 4 35	6 9	0 34	s 4 40	6 16	9 43
19	S	r 6 56	7 6	1 19	r 6 52	7 13	10 27
20	Mon.	s 4 34	8 8	2 5	s 4 38	8 14	11 10
21	Tues.	r 6 59	9 13	2 50	r 6 55	9 18	11 57
22	Wed.	s 4 33	10 17	3 35	s 4 37	10 21	0 21
23	Thur.	r 7 1	11 21	4 20	r 6 57	11 24	1 7
24	Frid.	s 4 32	morn	5 8	s 4 36	morn	1 54
25	Satur.	r 7 4	0 24	5 57	r 6 59	0 25	2 43
26	S	s 4 31	1 29	6 49	s 4 36	1 29	3 34
27	Mon.	r 7 6	2 36	7 39	r 7 1	2 35	4 24
28	Tues.	s 4 30	3 46	8 31	s 4 35	3 43	5 15
29	Wed.	r 7 8	5 1	9 23	r 7 3	4 57	6 9
30	Thur.	s 4 29	6 20	10 18	s 4 34	6 14	7 4

DECEMBER.

Full Moon, 1st day, 6h. 20m. A. M.
 Last Quarter, 7th day, 9h. 39m. P. M.
 New Moon, 15th day, 1h. 30m. P. M.
 First Quarter, 23rd day, 6h. 57m. P. M.
 Full Moon, 30th day, 5h. 15m. P. M.

1876.		BOSTON.			NEW YORK.		
		Sun R. & S.	Moon R. & S.	High Water.	Sun R. & S.	Moon R. & S.	High Water.
1	Frid.	r 7 10	rises	11 13	r 7 5	rises	7 55
2	Satur.	s 4 28	5 21	.....	s 4 33	5 28	8 52
3	S	r 7 12	6 37	0 35	r 7 7	6 43	9 50
4	Mon.	s 4 28	7 58	1 33	s 4 33	8 3	10 44
5	Tues.	r 7 14	9 18	2 28	r 7 9	9 22	11 38
6	Wed.	s 4 28	10 35	3 21	s 4 33	10 37	0 6
7	Thur.	r 7 16	11 48	4 13	r 7 11	11 49	1 0
8	Frid.	s 4 28	morn	5 7	s 4 33	morn	1 54
9	Satur.	r 7 18	0 58	6 2	r 7 13	0 58	2 48
10	S	s 4 28	2 7	6 56	s 4 33	2 5	3 41
11	Mon.	r 7 20	3 16	7 49	r 7 15	3 13	4 33
12	Tues.	s 4 28	4 25	8 41	s 4 33	4 20	5 26
13	Wed.	r 7 21	5 33	9 32	r 7 16	5 27	6 18
14	Thur.	s 4 29	6 39	10 22	s 4 34	6 32	7 8
15	Frid.	r 7 23	sets	11 10	r 7 18	sets	7 52
16	Satur.	s 4 29	4 57	11 54	s 4 34	5 4	8 38
17	S	r 7 24	5 59	0 16	r 7 19	6 5	9 24
18	Mon.	s 4 29	7 3	0 59	s 4 35	7 8	10 6
19	Tues.	r 7 25	8 7	1 41	r 7 20	8 11	10 44
20	Wed.	s 4 31	9 10	2 21	s 4 36	9 13	11 23
21	Thur.	r 7 26	10 12	3 0	r 7 21	10 14	.....
22	Frid.	s 4 32	11 15	3 39	s 4 37	11 15	0 25
23	Satur.	r 7 27	morn	4 21	r 7 22	morn	1 8
24	S	s 4 33	0 18	5 6	s 4 38	0 17	1 52
25	Mon.	r 7 28	1 25	5 57	r 7 23	1 23	2 43
26	Tues.	s 4 34	2 36	6 52	s 4 39	2 32	3 37
27	Wed.	r 7 29	3 51	7 54	r 7 23	3 46	4 39
28	Thur.	s 4 35	5 9	8 56	s 4 41	5 3	5 41
29	Frid.	r 7 29	6 27	10 0	r 7 24	6 20	6 46
30	Satur.	s 4 37	rises	11 2	s 4 42	rises	7 45
31	S	r 7 30	5 29	11 59	r 7 24	5 35	8 43

CHICAGO ALMANAC, 1876.

JANUARY.

First Q'ter, 4d. 9h. 34m. a.m.
 Full Moon, 11d. 0h. 33m. a.m.
 Last Q'ter, 18d. 2h. 59m. a.m.
 New Moon, 26d. 7h. 52m. a.m.

FEBRUARY.

First Q'ter, 2d. 8h. 3m. p.m.
 Full Moon, 9d. 11h. 57m. a.m.
 Last Q'ter, 16d. 11h. 6m. p.m.
 New Moon, 25d. 0h. 30m. a.m.

D. M.	D. of W.	Sun Rises	Sun Sets.	Moon R. & S.	D. M.	D. of W.	Sun Rises	Sun Sets.	Moon R. & S.
1	Sa.	7 29	4 38	9 34	1	Tu.	7 14	5 14	morn
2	S	7 29	4 39	10 41	2	W.	7 13	5 15	0 2
3	M.	7 29	4 40	11 49	3	Th.	7 12	5 17	1 18
4	Tu.	7 29	4 41	morn	4	Fr.	7 11	5 18	2 36
5	W.	7 29	4 42	0 59	5	Sa.	7 10	5 19	3 51
6	Th.	7 29	4 43	2 14	6	S	7 9	5 20	5 1
7	Fr.	7 29	4 44	3 34	7	M.	7 7	5 22	6 0
8	Sa.	7 28	4 45	4 55	8	Tu.	7 6	5 23	6 47
9	S	7 28	4 46	6 11	9	W.	7 5	5 24	rises
10	M	7 28	4 47	7 19	10	Th.	7 4	5 25	6 45
11	Tu.	7 28	4 48	rises	11	Fr.	7 2	5 27	7 56
12	W.	7 27	4 49	6 38	12	Sa.	7 1	5 28	9 6
13	Th.	7 27	4 51	7 56	13	S	6 59	5 30	10 14
14	Fr.	7 26	4 52	9 9	14	M.	6 58	5 31	11 20
15	Sa.	7 26	4 53	10 19	15	Tu.	6 57	5 32	morn
16	S	7 26	4 54	11 26	16	W.	6 55	5 33	0 27
17	M.	7 25	4 55	morn	17	Th.	6 54	5 35	1 33
18	Tu.	7 25	4 57	0 31	18	Fr.	6 52	5 36	2 35
19	W.	7 24	4 58	1 36	19	Sa.	6 51	5 37	3 34
20	Th.	7 24	4 59	2 41	20	S	6 50	5 38	4 26
21	Fr.	7 23	5 0	3 45	21	M.	6 48	5 39	5 10
22	Sa.	7 22	5 1	4 45	22	Tu.	6 47	5 41	5 47
23	S	7 22	5 3	5 41	23	W.	6 45	5 42	6 17
24	M.	7 21	5 4	6 30	24	Th.	6 44	5 43	sets
25	Tu.	7 20	5 5	sets	25	Fr.	6 42	5 44	6 22
26	W.	7 19	5 6	5 13	26	Sa.	6 41	5 46	7 31
27	Th.	7 18	5 7	6 21	27	S	6 39	5 47	8 41
28	Fr.	7 18	5 9	7 28	28	M.	6 37	5 48	9 53
29	Sa.	7 17	5 10	8 34	29	Tu.	6 36	5 50	11 9
30	S	7 16	5 11	9 42	...	...	...	...	...
31	M.	7 15	5 12	10 51	...	...	...	...	...

CHICAGO ALMANAC, 1876.

MARCH.

First Q'ter, 3d. 3h.58m.a.m.
 Full Moon, 10d. 0h.22m.a.m.
 Last Q'ter, 17d. 7h.34m.p.m.
 New Moon, 25d. 2h.22m.p.m.

D. M.	D. of W.	Sun Rises	Sun Sets.	Moon R. & S.
1	W.	6 34	5 51	morn
2	Th.	6 32	5 52	0 26
3	Fr.	6 31	5 53	1 41
4	Sa.	6 29	5 55	2 51
5	S	6 28	5 56	3 52
6	M.	6 26	5 57	4 42
7	Tu.	6 24	5 58	5 19
8	W.	6 23	5 59	5 48
9	Th.	6 21	6 0	rises
10	Fr.	6 20	6 1	6 46
11	Sa.	6 18	6 2	7 54
12	S	6 16	6 3	9 1
13	M.	6 14	6 4	10 10
14	Tu.	6 13	6 6	11 18
15	W.	6 11	6 7	morn
16	Th.	6 9	6 8	0 23
17	Fr.	6 7	6 9	1 22
18	Sa.	6 5	6 10	2 17
19	S	6 4	6 12	3 5
20	M.	6 2	6 13	3 46
21	Tu.	6 0	6 14	4 18
22	W.	5 58	6 15	4 44
23	Th.	5 57	6 16	5 7
24	Fr.	5 55	6 17	5 28
25	Sa.	5 54	6 18	sets
26	S	5 52	6 19	7 37
27	M.	5 50	6 20	8 54
28	Tu.	5 49	6 21	10 12
29	W.	5 47	6 23	11 31
30	Th.	5 46	6 24	morn
31	Fr.	5 44	6 25	0 44

APRIL.

First Q'ter, 1d. 10h.22m.a.m.
 Full Moon, 8d. 1h.49m.p.m.
 Last Q'ter, 16d. 2h.47m.p.m.
 New Moon, 24d. 1h.13m.a.m.
 First Q'ter, 30d. 4h.37m.p.m.

D. M.	D. of W.	Sun Rises	Sun Sets.	Moon R. & S.
1	Sa.	5 42	6 26	1 48
2	S	5 40	6 27	2 41
3	M.	5 39	6 28	3 21
4	Tu.	5 37	6 29	3 52
5	W.	5 35	6 30	4 16
6	Th.	5 33	6 31	4 39
7	Fr.	5 32	6 32	4 59
8	Sa.	5 30	6 34	rises
9	S	5 29	6 35	7 51
10	M.	5 27	6 36	9 0
11	Tu.	5 25	6 37	10 7
12	W.	5 24	6 38	11 9
13	Th.	5 22	6 39	morn
14	Fr.	5 21	6 40	0 7
15	Sa.	5 19	6 41	0 59
16	S	5 17	6 42	1 42
17	M.	5 16	6 43	2 17
18	Tu.	5 14	6 45	2 44
19	W.	5 13	6 46	3 8
20	Th.	5 11	6 47	3 31
21	Fr.	5 9	6 48	3 52
22	Sa.	5 8	6 49	4 12
23	S	5 6	6 50	4 34
24	M.	5 5	6 51	sets
25	Tu.	5 3	6 52	9 12
26	W.	5 2	6 53	10 29
27	Th.	5 1	6 54	11 39
28	Fr.	4 59	6 55	morn
29	Sa.	4 58	6 56	0 37
30	S	4 57	6 57	1 22
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CHICAGO ALMANAC, 1876.

MAY.

Full Moon, 8d. 4h. 3m.a.m.
 Last Q'ter, 16d. 7h.37m.a.m.
 New Moon, 23d. 9h.35m.a.m.
 First Q'ter, 29d. 11h.59m.p.m.

D. M.	D. of W.	Sun Rises	Sun Sets.	Moon R. & S.
1	M.	4 56	6 58	1 56
2	Tu.	4 54	6 59	2 22
3	W.	4 53	7 1	2 45
4	Th.	4 51	7 2	3 5
5	Fr.	4 50	7 3	3 25
6	Sa.	4 49	7 4	3 45
7	S	4 48	7 5	4 7
8	M.	4 46	7 6	rises
9	Tu.	4 45	7 7	8 59
10	W.	4 44	7 8	9 58
11	Th.	4 43	7 9	10 52
12	Fr.	4 42	7 10	11 38
13	Sa.	4 41	7 11	morn
14	S	4 40	7 12	0 16
15	M.	4 39	7 13	0 45
16	Tu.	4 38	7 14	1 10
17	W.	4 37	7 15	1 32
18	Th.	4 37	7 16	1 53
19	Fr.	4 36	7 17	2 12
20	Sa.	4 35	7 18	2 33
21	S	4 34	7 19	2 58
22	M.	4 33	7 20	3 27
23	Tu.	4 33	7 20	sets
24	W.	4 32	7 21	9 21
25	Th.	4 31	7 22	10 26
26	Fr.	4 30	7 23	11 17
27	Sa.	4 30	7 24	11 55
28	S	4 29	7 25	morn
29	M.	4 29	7 26	0 25
30	Tu.	4 28	7 27	0 50
31	W.	4 28	7 28	1 11

JUNE.

Full Moon, 6d. 6h.47m.p.m.
 Last Q'ter, 14d. 9h.24m.p.m.
 New Moon, 21d. 4h.27m.p.m.
 First Q'ter, 28d. 9h.24m.a.m.

D. M.	D. of W.	Sun Rises	Sun Sets.	Moon R. & S.
1	Th.	4 27	7 28	1 31
2	Fr.	4 27	7 29	1 50
3	Sa.	4 26	7 29	2 12
4	S	4 26	7 30	2 36
5	M.	4 26	7 31	3 4
6	Tu.	4 26	7 31	rises
7	W.	4 25	7 32	8 47
8	Th.	4 25	7 32	9 34
9	Fr.	4 25	7 33	10 14
10	Sa.	4 25	7 34	10 46
11	S	4 25	7 34	11 13
12	M.	4 24	7 35	11 36
13	Tu.	4 24	7 35	11 57
14	W.	4 24	7 36	morn
15	Th.	4 24	7 36	0 16
16	Fr.	4 24	7 36	0 34
17	Sa.	4 25	7 37	0 56
18	S	4 25	7 37	1 22
19	M.	4 25	7 37	1 54
20	Tu.	4 25	7 37	2 36
21	W.	4 25	7 37	sets
22	Th.	4 26	7 38	9 5
23	Fr.	4 26	7 38	9 50
24	Sa.	4 26	7 38	10 24
25	S	4 26	7 38	10 51
26	M.	4 27	7 38	11 15
27	Tu.	4 27	7 38	11 35
28	W.	4 28	7 38	11 55
29	Th.	4 28	7 38	morn
30	Fr.	4 28	7 38	0 16
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CHICAGO ALMANAC, 1876.

JULY.

Full Moon, 6d. 9h.48m.a.m.
 Last Q'ter, 14d. 8h. 6m.a.m.
 New Moon, 20d.11h. 3m.p.m.
 First Q'ter, 27d. 9h.29m.p.m.

D. M.	D. of W.	Sun Rises	Sun Sets.	Moon R. & S.
1	Sa.	4 29	7 38	0 38
2	S	4 29	7 38	1 5
3	M.	4 30	7 38	1 38
4	Tu.	4 30	7 38	2 19
5	W.	4 31	7 38	3 6
6	Th.	4 32	7 37	rises
7	Fr.	4 32	7 37	8 49
8	Sa.	4 33	7 36	9 17
9	S	4 34	7 36	9 40
10	M.	4 35	7 35	10 1
11	Tu.	4 36	7 35	10 20
12	W.	4 36	7 34	10 39
13	Th.	4 37	7 34	10 58
14	Fr.	4 38	7 33	11 22
15	Sa.	4 39	7 32	11 50
16	S	4 40	7 32	morn
17	M.	4 40	7 31	0 26
18	Tu.	4 41	7 31	1 13
19	W.	4 42	7 30	2 14
20	Th.	4 43	7 29	sets
21	Fr.	4 44	7 28	8 19
22	Sa.	4 44	7 28	8 49
23	S	4 45	7 27	9 15
24	M.	4 46	7 26	9 38
25	Tu.	4 47	7 25	9 58
26	W.	4 48	7 24	10 19
27	Th.	4 49	7 23	10 42
28	Fr.	4 50	7 22	11 8
29	Sa.	4 51	7 21	11 38
30	S	4 52	7 20	morn
31	M.	4 53	7 19	0 16

AUGUST.

Full Moon, 5d. 0h.48m.a.m.
 Last Q'ter, 12d. 4h. 9m.p.m.
 New Moon, 19d. 6h.36m.a.m.
 First Q'ter, 23d. 0h.28m.p.m.

D. M.	D. of W.	Sun Rises	Sun Sets.	Moon R. & S.
1	Tu.	4 54	7 18	1 1
2	W.	4 55	7 17	1 55
3	Th.	4 56	7 16	2 55
4	Fr.	4 57	7 15	rises
5	Sa.	4 58	7 14	7 46
6	S	4 59	7 12	8 7
7	M.	5 0	7 11	8 27
8	Tu.	5 1	7 10	8 45
9	W.	5 2	7 9	9 4
10	Th.	5 3	7 7	9 27
11	Fr.	5 4	7 6	9 52
12	Sa.	5 5	7 4	10 23
13	S	5 6	7 3	11 3
14	M.	5 7	7 1	11 56
15	Tu.	5 8	7 0	morn
16	W.	5 9	6 58	1 3
17	Th.	5 10	6 57	2 21
18	Fr.	5 11	6 55	3 45
19	Sa.	5 12	6 54	sets
20	S	5 13	6 52	7 38
21	M.	5 15	6 51	7 59
22	Tu.	5 16	6 49	8 21
23	W.	5 17	6 48	8 44
24	Th.	5 18	6 46	9 8
25	Fr.	5 19	6 45	9 37
26	Sa.	5 20	6 43	10 12
27	S	5 21	6 42	10 56
28	M.	5 22	6 40	11 47
29	Tu.	5 23	6 38	morn
30	W.	5 24	6 37	0 45
31	Th.	5 25	6 35	1 47

CHICAGO ALMANAC, 1876.

SEPTEMBER.

Full Moon, 3d. 3h.23m.p.m.
 Last Q'ter, 10d.10h.31m.p.m.
 New Moon, 17d. 4h. 4m.p.m.
 First Q'ter, 25d. 6h.13m.a.m.

D. M.	D. of W.	Sun Rises	Sun Sets.	Moon R. & S.
1	Fr.	5 26	6 34	2 52
2	Sa.	5 27	6 32	3 59
3	S	5 28	6 30	rises
4	M.	5 29	6 28	6 52
5	Tu.	5 30	6 27	7 11
6	W.	5 31	6 25	7 32
7	Th.	5 32	6 23	7 55
8	Fr.	5 33	6 21	8 24
9	Sa.	5 34	6 20	9 1
10	S	5 35	6 18	9 50
11	M.	5 36	6 17	10 50
12	Tu.	5 37	6 15	morn
13	W.	5 38	6 13	0 2
14	Th.	5 39	6 11	1 20
15	Fr.	5 41	6 10	2 42
16	Sa.	5 42	6 8	4 1
17	S	5 43	6 6	sets
18	M.	5 44	6 4	6 23
19	Tu.	5 45	6 2	6 45
20	W.	5 46	6 1	7 8
21	Th.	5 46	5 59	7 36
22	Fr.	5 47	5 57	8 10
23	Sa.	5 48	5 55	8 51
24	S	5 49	5 53	9 38
25	M.	5 51	5 52	10 33
26	Tu.	5 52	5 50	11 33
27	W.	5 53	5 48	morn
28	Th.	5 54	5 46	0 38
29	Fr.	5 55	5 45	1 44
30	Sa.	5 57	5 43	2 50
...

OCTOBER.

Full Moon, 3d. 5h. 6m.a.m.
 Last Q'ter, 10d. 4h.30m.a.m.
 New Moon, 17d. 4h. 7m.a.m.
 First Q'ter, 25d. 2h. 4m.a.m.

D. M.	D. of W.	Sun Rises	Sun Sets.	Moon R. & S.
1	S	5 58	5 42	3 55
2	M.	5 59	5 40	5 1
3	Tu.	6 0	5 38	rises
4	W.	6 1	5 36	5 59
5	Th.	6 2	5 35	6 27
6	Fr.	6 3	5 33	7 2
7	Sa.	6 4	5 31	7 48
8	S	6 5	5 29	8 44
9	M.	6 6	5 28	9 52
10	Tu.	6 8	5 26	11 7
11	W.	6 9	5 25	morn
12	Th.	6 10	5 23	0 25
13	Fr.	6 11	5 21	1 43
14	Sa.	6 12	5 20	2 57
15	S	6 14	5 18	4 10
16	M.	6 15	5 17	5 21
17	Tu.	6 16	5 15	sets
18	W.	6 17	5 14	5 36
19	Th.	6 18	5 12	6 6
20	Fr.	6 19	5 11	6 44
21	Sa.	6 20	5 9	7 29
22	S	6 21	5 8	8 22
23	M.	6 22	5 6	9 21
24	Tu.	6 24	5 5	10 24
25	W.	6 25	5 3	11 28
26	Th.	6 27	5 2	morn
27	Fr.	6 28	5 0	0 33
28	Sa.	6 29	4 59	1 37
29	S	6 30	4 58	2 43
30	M.	6 32	4 56	3 50
31	Tu.	6 33	4 55	5 0

CHICAGO ALMANAC, 1876.

NOVEMBER.

Full Moon, 1d. 5h.41m.p.m.
 Last Q'ter, 8d.11h.27m.a.m.
 New Moon, 15d. 6h.58m.p.m.
 First Q'ter, 23d.10h.36m.p.m.

D. M.	D. of W.	Sun Rises	Sun Sets.	Moon R. & S.
1	W.	6 34	4 54	6 12
2	Th.	6 35	4 53	rises
3	Fr.	6 36	4 52	5 41
4	Sa.	6 38	4 50	6 35
5	S	6 39	4 49	7 43
6	M.	6 40	4 48	8 58
7	Tu.	6 41	4 47	10 16
8	W.	6 42	4 46	11 33
9	Th.	6 44	4 44	morn
10	Fr.	6 45	4 43	0 46
11	Sa.	6 46	4 42	1 58
12	S	6 47	4 41	3 8
13	M.	6 48	4 40	4 17
14	Tu.	6 50	4 40	5 27
15	W.	6 51	4 39	6 36
16	Th.	6 52	4 38	sets
17	Fr.	6 53	4 37	5 23
18	Sa.	6 54	4 36	6 13
19	S	6 56	4 36	7 10
20	M.	6 57	4 35	8 11
21	Tu.	6 58	4 34	9 16
22	W.	6 59	4 33	10 20
23	Th.	7 0	4 33	11 24
24	Fr.	7 2	4 32	morn
25	Sa.	7 3	4 32	0 26
26	S	7 4	4 31	1 31
27	M.	7 5	4 31	2 38
28	Tu.	7 6	4 30	3 47
29	W.	7 8	4 30	5 2
30	Th.	7 9	4 29	6 21
...

DECEMBER.

Full Moon, 1d. 5h.14m.a.m.
 Last Q'ter, 7d. 8h.33m.p.m.
 New Moon, 15d. 0h.24m.p.m.
 First Q'ter, 23d. 5h.51m.p.m.
 Full Moon, 30d. 4h. 9m.p.m.

D. M.	D. of W.	Sun Rises	Sun Sets.	Moon R. & S.
1	Fr.	7 10	4 29	rises
2	Sa.	7 11	4 29	5 25
3	S	7 12	4 29	6 40
4	M.	7 13	4 28	8 1
5	Tu.	7 14	4 28	9 21
6	W.	7 15	4 28	10 38
7	Th.	7 16	4 28	11 50
8	Fr.	7 17	4 28	morn
9	Sa.	7 17	4 28	1 0
10	S	7 18	4 28	2 9
11	M.	7 19	4 28	3 17
12	Tu.	7 20	4 28	4 26
13	W.	7 21	4 28	5 34
14	Th.	7 21	4 29	6 40
15	Fr.	7 22	4 29	sets
16	Sa.	7 23	4 29	5 1
17	S	7 24	4 29	6 2
18	M.	7 24	4 30	7 6
19	Tu.	7 25	4 30	8 10
20	W.	7 25	4 31	9 13
21	Th.	7 26	4 31	10 14
22	Fr.	7 26	4 32	11 17
23	Sa.	7 27	4 32	morn
24	S	7 27	4 33	0 20
25	M.	7 28	4 33	1 26
26	Tu.	7 28	4 34	2 37
27	W.	7 28	4 35	3 52
28	Th.	7 28	4 36	5 10
29	Fr.	7 29	4 36	6 27
30	Sa.	7 29	4 37	rises
31	S	7 29	4 38	5 32

SATURDAY, JANUARY 1, 1876.

January. Rec. Paid
Cash on hand

SUNDAY, JANUARY 2, 1876.

Q. A.

MONDAY, JANUARY 3, 1876.

RR

TUESDAY, JANUARY 4, 1876.

R P

WEDNESDAY, JANUARY 5, 1876.

R P

THURSDAY, JANUARY 6, 1876.

RE

FRIDAY, JANUARY 7, 1876.

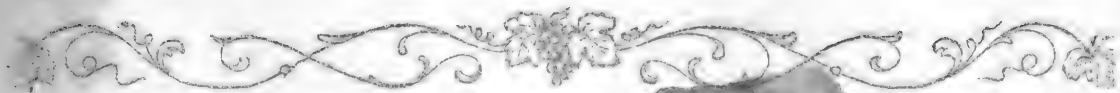
Q Q

SATURDAY, JANUARY 8, 1876.

Q. Q.

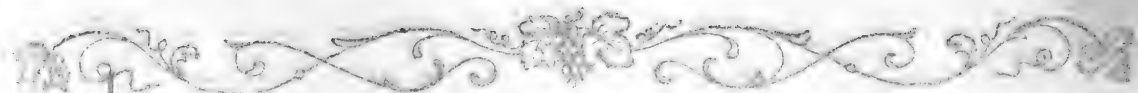
SUNDAY, JANUARY 9, 1876.

20



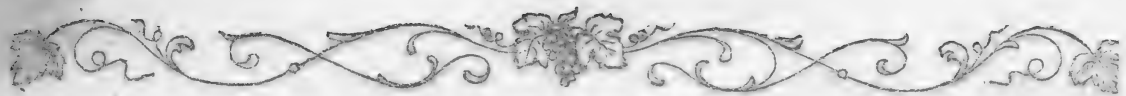
MONDAY, JANUARY 10, 1876.

R P



TUESDAY, JANUARY 11, 1876.

R P



WEDNESDAY, JANUARY 12, 1876.



THURSDAY, JANUARY 13, 1876.

Q Q

No. 2.

SATURDAY, JANUARY 15, 1876. (See Nov 26)

~~Description of cats. found
September 5, 1852.
Color green (sometimes
brown) with a light
stripe on the back.
On the 3, 6, 7 & 10 I saw
a brown spot. A few
hairs on each wing.
They eat much sugar.
When at rest they
somewhat resemble a
cicada (beetle) as
made of silk and bits
of substance on which it
is made. Length 1/10
in. long, brown and
chirpy (No. 2. See Nov 25)~~

FRIDAY, JANUARY 14, 1876.

No 1 = *Callosia chlois*
No 3 = *Gastrophysa* ?
" 4 = *Limacodes ocofles* ?
" 5 = *Euclea querceti*
" 7 =

SUNDAY, JANUARY 16, 1876.

This caterpillar measures
 about $1\frac{3}{4}$ in. in length.
 The body and head
 are white; the body
 a stripe on the side,
 and a row of 5 or 6
 on each side, black.
 The feet are red.
 It is covered with
 long white (sometimes
 yellow) hairs growing
 immediately from
 the skin, and rather
 thin. It lives on the
 2nd 3rd 5th seg. a long
 black pencil, and
 in the rest of the
 fruit.

MONDAY, JANUARY 17, 1876.

rest (except on 4th)
 a few black hairs. It
 eats wild cherries, cherries
 and maple, and is
 found in Sept. No 6

No 7

It is found on clover
 Aug. 1875. Length $1\frac{1}{4}$ inches
 It has a large black
 head, and a large
 black body. Color orange
 with black spots. It is
 found on clover, and
 on the back, and
 on the sides.

(see June 14)

TUESDAY, JANUARY 18, 1876.

side end on the
back extending from
the head to near the
tail where they change
into 2 black spots.

Below on each side
a yellow stripe.

Black marks above
each foot. A black
dorsal spot on each
side of the 4th segment.

Sasypitru angustum

(see 18107)

No 8

WEDNESDAY, JANUARY 19, 1876.

Eat found on wild cherry
Sept 7, '83, 1 1/4 in long.
Color black, legs
yellowish. Head black.
10 yellow marks on each
ring of the body which are a
dark white line. Along
back an interrupted
red stripe edged with
velvety black, extending
to the 10th segment. On
the 11th is a black
lineation

Cut 127

Aeronycta occidentalis (?)
" *lobeliae*

(Larva known by French & Coq. List)

THURSDAY, JANUARY 20, 1876.

Green limacode, Sept 13 -
wild cherry, 2 Purple
spots. 10 or 12 red
dorsum. (Probably described
in other book)

green to a smooth
yellow to green, the bark
white to cream, often
yellow to green, spots
of a light brown and
concentrated in a place
some are 9, 10, 11, 12
red, purple, white, blue
before 10, 11, 12, 13, 14
and 15, 16, 17, 18, 19
the coloration, (very 17)
the coloration


FRIDAY, JANUARY 21, 1876.

Notodonta from Cerabbi island
Not brought on black silk.
Green head with 2 black
lines. Yellow stripes on
each side of back. White
dorsal line. Marked
irregularly on back
with purple. 2 or 3 yellow
dots on each side.
hind feet not used.
When fully grown ^{some} = 13

Saxidomus bilineata

colocynthis frutes
S.H.H.

SATURDAY, JANUARY 22, 1876.

V Linacodes from Whales
Sept '85. Oval flat green
on back a -shaped
patch of red, dark purple
bordered with yellow.
a red spot toward head
on wild cherry.

VI After shedding skins spot
on back directed with
spot near head.

Tetracidia testacea?

Homocidus?

Leucospis?

Tetracidia pallida?

Tetracidia flavula

Scopied 12

SUNDAY, JANUARY 23, 1876.

All-green Linacodes.
The back is elevated
into 2 ridges and it
sometimes has a tail.
wild cherry, maple etc.
Probably described in other
books Sept '85.

Two kinds, light or yellow-
green and dark or
blue green. These may
be different species)
they are (May '86).

Light green - *Linacodes fasciolar*
Dark green - *Pachyneurallipuncta*
Dec Oct 8 (ant to
head)

13

MONDAY, JANUARY 24, 1876.

Very much resembles 10
except that the purple
is much more extensive
extending in a band
with 4 lateral projections on
the head to tail.
On Jan 24 '85 at
Livingston. Probably
= 10.

Same as 10 No!

Stenobothrus bilineatus

See No 206

14

TUESDAY, JANUARY 25, 1876.

Other found on flowers
of Thistle (or Bell's dock)
and aster (on the flower bed)
in Sept. '85. Color green
with or without a
reddish line along the
back. The head is
brownish and notched
on top.

Found to chrysalis in Sept.
Brownish yellow, line on
back and wing cases
black.

Green with white stripe
on wings.

Stenobothrus rubinaria?

15 A

Snake Ballport L.I. Aug 96
Set on ground in hole 2 steps
over 8 ft. Brown, a blotched
dusky blackish & orange,
and by pale areas around
it. These areas reddish
brown comes over with body
sides slightly mottled.
Subventral white
sprinkle black. Tail like
var, a little in amount
of under shedding, have

have trace of line & are
Hd mottled reticulated
with black on very pale
ground. w 3.5

are all dirty brown ex-
cept white tubercles -
to J.

hamamelis

15 B

Like 15A but no black
shades, it is surrounded
by bright yellow areas.
Trace of a yellowish d.
line. Spots 3-12, 1 spot
3-4, two 6-10, gray joint
one (i) on 11 and a large
 Δ spot (i-ii) on 12,
in cir with reddish ring
ovata

WEDNESDAY, JANUARY 26, 1876.

Butterflies found
in clay and Sept. on
white oak. Color white
with a reddish. Remain
on the back of stem.
leaf with its head
turned to one side
(making the body). (May
be described in the
other book)

159 Same: on stem in July 27, 1870
not pale white, but
pale. (See Sept 2)
Some all having green
slight tubercles, 2 above
of each lobe must be
in H. m. Body (See Sept 2)

Aug 12 50 H. d. flattened in front, depressed at vertex. Chloride green
a black line from vertex of each lobe to each side where the
eyes black. mouth pale. Jan. 1.3 mm Body with dorsal green
as a with. but much brighter, more on 13, yellowish. top of
with brown. Body green with oblique white lines in 5 d space
in faint yellow subterminal line with red brown spots. Below
the 1st yellow seg. 1st. feet to base. all brown outwards.
Aug 9 50 H. d. large, thin, narrow, vertex flattened in front
& depressed at vertex. green. 1.3 mm Body with dorsal
mouth pale, antennae whitish. 2.1 mm Body as
green. all smaller except on 12, a slight
consist of 2 small tubercles. markings as before but
more distinct & approaching the most of green.

THURSDAY, JANUARY 27, 1876.

"cata". On
and Sept '83.
leaf with
a red
interference
mean
a line
the 3rd
and 16th
cast.
cata.
green
at
Nov 9

17

Hemaris sp.

28

In many
days the
trees are
low and
the ground
is covered
with snow.

17

FRIDAY, JANUARY 28, 1876.

Sphinx found at
Livingston Sept '83 on
'round leaf-long bud
stuff'. Reddish green
redder at the sides
and a red line on the
back. Horn red. Head
red. Can be drawn
part way under the
1st segment. Black
on wings above the feet.

Hemaris sp.

18

SATURDAY, JANUARY 29, 1876.

Don't know found
Sept 84 on wild cherry
at Livingston. ⁴ bands yellow all
over ~~the~~ ^{around} of perimorphia.
The band is slightly notched
and there are 2 black
spots on the 1st
segment. It is only a
little.

Endargia hypochrysa

19

SUNDAY, JANUARY 30, 1876.

Green & brown wingless
found in white oak
Sept. 15, 1885. Color green
broad stripes on back
brown. Spun a web
among the leaves.

Cat 129

Chenida humulata
Hutch (det Aug 1900)

20

Copied

MONDAY, JANUARY 31, 1876.

Wrote down in 'house-leaf-
long bud' Livingston Sept.
1885. Head green with 2
brown stripes. arched green
in arch side purplish
on top. slight hump on 4th
and less on 7th.
Below the arch mark
with purplish. 2 yellow
spots on 7th segment.
Rest of body to 10th segment
where area slight hump
green marked with
distinct. Last segment
purplish.

Pedermaia bodia

TUESDAY, FEBRUARY 1, 1876.

Small cat on 'long-bud'
Lvs. Sept. '85. Thicker at
4th seg. On 4th & 5th 2 black
spots. Brown vari-
gated with white-brown.
Feet white-brown.

Probably this on maple Jefferson
Highlands N.H. July 1895. ate some
dogbane blossoms and moulted
once (but I did for a short time).
setae apparently perfectly normal
for urticulae, small, obscure)

WEDNESDAY, FEBRUARY 2, 1876.

ash sphinx on sharpshooter
Sept. '85. Light green.
Spur on sides of black
and yellow. Horn ^{blue} green
speckled with black.
Head green with 2 black
stripes. Top of feet black
(base in other work)

Sphinx malvae

THURSDAY, FEBRUARY 3, 1876.

Harappa on *Hony-bud*
Livingston Sept. '83.
 Green with white lines
 and white markings
 on sides. Spiracles brick
 red.

Same as 17. only
 younger.

FRIDAY, FEBRUARY 4, 1876.

Aspater on wild cherry
 Sept. '83. Long with a
 few black hairs - larva
 2.5 cm. Broad red purple
 stripe on back edged
 with white. Head green
 with 2 black hairs.
 (Can be described in other
 words)

On *Aspid?* 1875

B. all green with yellow
 lines. Tubercles normal
 (nocturnal) black from dirt
 with black setae.
 A few black dots on head

(See 605)

SATURDAY, FEBRUARY 5, 1876.

Green cat. on maple.
 Head large, green.
 Jaws yellow. a yellowish
 stripe on each side.
 Sept. '85. Yellow on tail.

Madala sibirica

$\frac{1}{2}$ Super (4/189) Black. of renal
 shape. Punctured, wing
 cases crescent. Cremaster
 Tapering, then straight,
 ending in 2 divergent
 points that curve upward
 (toward coronum)

(See Sept 22)

SUNDAY, FEBRUARY 6, 1876.

Small green cat. on black
 oak. Head rather large.
 Brownish line on each
 side and also on
 each side of head.

MONDAY, FEBRUARY 7, 1876.

Argyria at Compton
Village N.H. near R.R.
4 yellow tufts, 5
black pencil on
1, 5 and 11 the account
color grey, head black
yellow horns etc,
♀ imago. out July 6.
white, black spots on
top & underneath.
another ♀ out July 7.
I put her out and
a ♂ *nova* came.
Brown & white crescent

Argyria nova

TUESDAY, FEBRUARY 8, 1876.

beat on hop July 10 '86
Black with spines (young)

Young ♀ 29 in Jan
as I know. Aug. 7.

WEDNESDAY, FEBRUARY 9, 1876.

Leaf of *Gnaphalium* on
leaf July 10. 56
probably 12-20 but
older.

Head red. Rod. in
line with yellow.
Spines yellowish or
white. Red line on
each side of body.

Gnaphalium dentatissimum

THURSDAY, FEBRUARY 10, 1876.

Leaf on red raspberry etc.
Specimen 2 H. Aug. 86.

Black on each side
transverse red spots
with red veins &

tanning hairs. On back
interrupted long. white
stripes & 1 yellow inter-
rupted longitudinal
strip on each side.
Head black & reddish.
Red beneath.

Its anything - 29. 1876
Head black tinged white
white with white hair
body velvety black
(see Nov 5)

FRIDAY, FEBRUARY 11, 1876.

Tyrocampa on beech
Jefferson MS. Aug 23, '86
Color purplish. Spotted
with white. Blueish
at base of spurs
which are black.
2 long black spurs
near head. Head
light mahogany
color. Spiracles black.
Out Apr 22 1887

Tyrocampa feldwicki

SATURDAY, FEBRUARY 12, 1876.

Butter Oct 14 1886,
Black, 2 long white strips
and some black hairs
Head black.

Another angle

SUNDAY, FEBRUARY 13, 1876.

An swamp weed with
 to June 1887
 black black mostly
 spines, body
 striped transversely
 with red. Head black.

Melolontha Holton
 by Francis's description

MONDAY, FEBRUARY 14, 1876.

On Lincoln June 1887
 "Egyptian". Head
 black, 4 black lines
 before & behind
 body & hairs yellow
 brown. On 4, 5 & 11
 segments black tuft
 with white hairs
 with "mottled" marks
 [3, 4, 5, 6 segs. brown
 tufts mixed with
 white, 11, 12 segs. black
 tufts. 2 white marks
 (see Nov 2)

Parorgyia obtusum &
leucophaea
 var. *basiflora*

TUESDAY, FEBRUARY 15, 1876.

On witch hazel
June 8, 87. White
at 9. Numerous
yellowish tapers
large white.
of 9. Seed shiny white
nearly covered with brown
Eggs brown. Skin 2 joints
part of head. Body
white a dark stripe
running bet. the joints, and
2 yellow transverse diagonal
bands on joints 3-11 inc.
contrary when body con-
tracted. At rest body
head touching middle
(See Nov 15)

WEDNESDAY, FEBRUARY 16, 1876.

Oxyia on kind of beech
June 8, 87. at Champank
Whitish gray hair
and 4 tufts mixed
with mould white
8 smaller tufts & 2 red
parts. Head black,
body whitish, 4 black
genitals and little
" along the sides

* Hop-hornbeam

Parorgyia (see 486)

Described by me as parasitic
Parorgyia annamensis

THURSDAY, FEBRUARY 17, 1876.

Leisocampa on black
oak at Champenok
June 8, '87. Very
much resembling
C. americana but
has 10 ~~shaped~~-shaped
white spots along
the back (gray on
sides, blue on back
edged with black
and white. 10 white
spots edged with
black and between
2 long red lines
edged with black)

distinct
C. sibirica

FRIDAY, FEBRUARY 18, 1876.

Spins a house on
unknown shrub.
Larva transparent
blackish above
white beneath
Head white with
4 black spots
Champenok, June 8, '87
(**cornuflorida* and
C. paniculata)

Larva of *Andrena*
June 8. Greatest diam. through
narrowest. abd. segs tapering
dark brown black, showing
brownish at the junction
of the parts. Body punctured
thru, wing & leg cases etc
finely wrinkled. Cornu-
florida from long, furnished
with stiff spring bristles.

See Oct 31

SATURDAY, FEBRUARY 19, 1876.

White cat. on white
hazel "pursting"
green with a few
white hairs from
blackish roots &
blackish hair along
back. Head with
blackish behind head
black.

Cocoon on branch of
leafy bark & thread
shape.

One brood a year.

Nota aq. maculata
(See No 121)

SUNDAY, FEBRUARY 20, 1876.

Notolenta on rock oak
from creek at Esopus
Does not overwinter but
green with 3 dark.

white & yellow stripes
the middle one, on
4, 5, 6 segs similar with
3 stripes and comes
together again, once
on 8, 9, 10 segs

at 2 branches back-
ward to the other
stripes. Head green
with 2 red stripes.

seen with hazel Aug 88 (No 118)
Helioconia ~~truncata~~
guttaria

MONDAY, FEBRUARY 21, 1876.

Feet white, head
 reddish white. Thin
 white hairs. On
 first seg. 2 red
 pencils; on 3rd
 a 10th seg. a
 red tuft - June '87
 Another example, Plattsburgh N.Y.
 Sept 14, 1874. Hd white, covered with
 regular light red spots. White
 obscure thin ^{above apex of} Δ ^{apex of} Δ
 narrow irregular lines; 7 on black
 bases of antennae and labrum pale
 shiny; w. 4 mm. Body greenish
 white with wrinkled irregular
 transverse white lines. Spin-
 ous white, each [5 or 6] ^{or more}
 subrounded and

TUESDAY, FEBRUARY 22, 1876.

A lot for on current
 yellow on each side
 on back, between
 greenish & brownish.
 About 12 black spots
 on each segment
 head brownish
 2 black spots June '87

Eupitelus vittaria

WEDNESDAY, FEBRUARY 23, 1876.

A chrysalis suspended
by the tail on unknown
chumb [unclear] shaped [unclear]
one lower than ant.
June 27, '87. color, white
on each wing a row
of elevated yellow
spots and black
dots [unclear] [unclear]
marked with [unclear]
and yellow. Tail black
antennae bases spotted
with black

Probably Melitaea Phacton

THURSDAY, FEBRUARY 24, 1876.

"wings" on black
ink, [unclear] Co. July 1, 1887
[unclear] black with
black & [unclear] black
several black [unclear]
[unclear] [unclear] [unclear]
faint [unclear] [unclear]
on the [unclear]. [unclear]
a web in the [unclear]

Geocia ferruginea Clem
per C. H. Fernald

SUNDAY, FEBRUARY 27, 1876.

Section eating well on
July 12, 1887. Yellow
with thin light
hairs. 2 dorsal
black spots. One on
each side head
black

Spilargis

MONDAY, FEBRUARY 28, 1876.

Living on ground near
claw in white ear
by 16. 1887. Rather
small. green
the rest of the body
lighter. I noticed before
the living specimen
was white with black
markings behind. When
in a dark color
(see Nov 13)

~~*Spilargis*~~
~~*Spilargis*~~
Spilargis luscitosa Clem.



TUESDAY, FEBRUARY 29, 1876.

Spine of leaves of
 willow July 16 287
 collected west of ...
 shells on leaf ...
 ... light orange

to this = 49



WEDNESDAY, MARCH 1, 1876.

to ...
 ... with black spot
 ... on wild cherry
 ... Orange colored
 ...
 ...

Hyperborea Do



SATURDAY, MARCH 4, 1876.

Foot rest of yesterday
April 1876. Green
not on 2. May 1876. Green
yellowish green.



SUNDAY, MARCH 5, 1876.

Stoma in brick
to the head
greenish black.
8. Longitudinal white
line & white line
red red.

* on 1876. Like
BBB but stripes more
distinct and more
yellow. Hair less
long.

* Satana Augustin

MONDAY, MARCH 6, 1876.

Little cat hatched
from yellow eggs on
February 27, 1876, 3.5,
yellow & black hairs
brown spots on head.
Eyes, mouth, yellow, black hair
body and head
black. Four dark
brown spots
on the black.

Probably =

Spilronia acron

TUESDAY, MARCH 7, 1876.

Little cat on ash Aug 87
Appearance of *Spilronia*
americana. Green
with 2 transverse black
strips on each ring
which is a
row of 6 yellow tubercles
with short hairs. Head
black with transverse yellow
stripes. Body green brown
tubercles on 1st & 2nd
segments black.
Light brown black hairs 4 hairs
on 1st segment, head + black spots

Spilronia americana

WEDNESDAY, MARCH 8, 1876.

yellow beard omyia
wild cherry Aug. 1877.
yellow with black
dorsal band including
yellow tufts. Head
yellow, 2 black pencils
on 1st ring, 1 black
on 2nd with horn
on 3rd ring. A few
white hairs.
Also on maple etc.

Omyia leucostigma
(a cat. var.)

Is it though?

Omyia definita

THURSDAY, MARCH 9, 1876.

Limnæodes maple thing
apple & wild cherry, thing
Aug 87. Green with a
row of points all around
thorax. Behind longest
reddish before; 2 yellow
lines on 2 ridges on
the back joined behind
the middle by two yellow
spots with red centers
the lines interrupted
between the spots.

Limnæodes involuta B
Thing fits description

FRIDAY, MARCH 10, 1876.

Bashed cut. on wild
 cherry, shining between 2
 leaves a brown scumbl
 a crown. Semi-transparent
 greenish or pinkish
 white, with or without
 iridescent dots at the
 base, more distinct
 towards the base.
 Head large, shiny,
 white with orange
 shading outwards and
 partly covered by the
 skin of the first ring

Mamestra confusa

SATURDAY, MARCH 11, 1876.

the cut. on white oak
 2.9 87. Head black: body
 black with longitudinal
 white. Tufts on 4th 5th and
 last segments, large white.
 Count any 14. Tufts black.

Enderly young of BB 34
 Variegated lined base
 H.D. Sept 18, 1893

SUNDAY, MARCH 12, 1876.

Pyramis on smooth
 dry st. Black with white
 dots, row of yellow
 spots just outside, on
 sides, red ring at
 base of each spin.
 Spine & head black

Pyramis st.

MONDAY, MARCH 13, 1876.

Red cherry tree & the
 wall, clear green with
 white lines.
 A dorsal stripe beginning
 on the 2nd segment
 yellow, continuing on
 each segment orange
 red shading less
 distinct towards the
 middle of the insect. Head
 yellow, with orange
 shading at the top.
 On ground = 8

same as 8

Large egg on back of leaf of black birch. H.
N.H. June 21 1895. Egg 1.4 bright
Pst. yellow green. shell transparent & brown
formed. Petiole brown well marked
narrow.

but not distinct. Top hexagonal but
varying size irregularly rounded
toward vertex. Inside pale at angles
under C obj. no hairs, the length of same seen
at angles on shaded side are rather
fine air pores running through shell
Hatched June 23. Hd rounded high black. legs

brown. A pair of large 3 pronged c-antennae as
fold as large tracheae, 3 prongs, 3 prongs at base. (On
setae from ordinary tubercle but i on 5-10
12 & anal plate look whitish succulent
Red/pale streaked with red at the sides.

In less than 10 days the green
went into the long tubercle which burst
centrally, colored at first, the anal
abraded with crimson. Anal feet
long divergent. (But it was not)
another egg on yellowish, pale green, green
glass color, bright, subtranslucent.

TUESDAY, MARCH 14, 1876.

(Cerynia on wild cherry
 April 37. Black with
 reddish black and
 black veins on wings.
 Black spot on 1st seg.
 on 4th the lateral
 processes & followed
 by gray hairs. 2
 white white.
 Hybernate away - how)

WEDNESDAY, MARCH 15, 1876.

(Cerynia on maple May 87
 not yet used to
 lay. color brown, yellow
 spots on 9-11 tail shaped
 like arrow head pointing
 forward. Above it a
 reddish dot. On 1st
 seg. a pair of transverse
 brown lines, another 1
 back and 1 side of yellow
 spots with black dots
 on 1st seg. of 1st seg.
 with 1st seg. of 1st seg.
 interrupted at 7th seg.
 and on 1st seg. more dots
 brown more 1 each on
 1st to 10th. Yellow between
 1st seg. mouth brown red to points

THURSDAY, MARCH 16, 1876.

Encountered on March 14 by
 color green shaded
 with reddish brown
 all over the body
 head green, notched
 shaded with brown
 2 little points on
 the first segment
 joined the head.
 stands out the second
 a stick.

neuronia pistacea Gr.

FRIDAY, MARCH 17, 1876.

stodonta on elm. Aug '87
 resembles 10. green with
 a few black hairs, short
 head with 2 black lines
 head white. Purple
 on back as follows. Stripes
 from 2nd to 10th seg.
 except 8th. On 4th, 6th
 7th sides. On 5th, 7th
 reduced to 2 purple
 spots. H¹ ~~2~~ ~~3~~ ~~4~~ ~~5~~ ~~6~~ ~~7~~ ~~8~~ ~~9~~ ~~10~~
 white at sides below
 purple and red spots
 on purple when it is
 extensive. Interrupted
 yellow line on sides

67
SATURDAY, MARCH 18, 1876.

Looper in wild cherry
They spin in common
a hollow house and
"milk" the inside.
Caterpillar with 4 black
longitudinal stripes
on the back, the extreme
ones the widest. Head
light orange color.

Hydrion undulata

68
SUNDAY, MARCH 19, 1876.

which are in use to separate the genera.
As they point out the ultimate characters
are physiological. The generic characters
of such a nature as would scarcely
the higher forms. This results
the bacteria. As we proceed further
of life, the organization becomes
we reach organisms which present
so slight that morphology almost
ters, and entirely fails to differentiate.
If conjugation is absent and
been present, the cells reproduce.

Biandata Purple spots on
feet many up & all going in
a dark purple white streak
not covering sides & space
and mostly white dorsal
band 5-10 & many down
a stripe no 12, also covering
brown & purple dots all over
rest of sides & some of feet
D. band heavily pink streaked;
the space 11-13 filled in
with purple. Oak

Mr L. Goutel

which are in use to separate the g
As they point out the ultimate cl
are physiological. The generic
of such a nature as would scarce
the higher forms. This results
the bacteria. As we proceed fr
of life, the organization become
we reach organisms which pres
so slight that morphology almos
ters, and entirely fails to differen

If conjugation is absent amo
been present, the cells reproduci
lent parts, a condition of affairs
Weismann for the primitive for
characters acquired by any specie
conditions, strictly inherited. I
such thing as species among th
number of intergrading varieties.
show constant characters, but it
another culture would ever be f
characters.

But owing to the nature of t
most part, on previously prepar
probable that they are degraded

67
SATURDAY, MARCH 18, 1876.

Looper on wild cherry
They spin in common
a hollow house and
"masks" the inside.
Cocoon with 4 black
longitudinal stripes
on the back, the extreme
one the widest. Head
light orange color

Hydrion undulata

68
SUNDAY, MARCH 19, 1876.

Caterpillar on "Long bud" say 27
tapering out each end
Color light green
with 3 longitudinal
yellow lines, 2 brown
spots on 4, 7, 8 & 10 & 11
contiguous to the outer
yellow line & other
slight brown markings
Head green with small
black dots on 2 patches
its shape in position
owing to the "hump"
especially behind.

69
MONDAY, MARCH 20, 1876.

Looper on 'low land'
Brown with 4 black
dots on each seg.
Black dorsal line with
brown center. Spun head
to 3rd segment. Reddish
spot on each seg.
5th seg. On top of 4th
abdominal seg. 2 with dots
with black between
2 elevated brown points
on 11th. Head brown
slightly mottled as
is the whole insect

70
will eat *Popillium glamineum*
TUESDAY, MARCH 21, 1876.

Larva on wild plant?
on *Coulters* *Cutis*
May '87. Black with
8 longitudinal yellow
stripes. Head & tail
dark red and
blackish to black.
Spot on 1st segment
black.

Head, spot on 1st
segment near tail light
orange red. Body
with 4 longitudinal
yellow stripes on each
side. Few white lines
interrupted yellow lines beneath
Gastrophysa *longipes*

(see cat 31)

71
WEDNESDAY, MARCH 22, 1876.

Quercus common on hills
and woods Aug. 87.
Yellowish white with
darkish brownish
red on some of the
leaves on each side
of the white band
of the black. Needles
white. Sap on it
black.

also *Quercus* common
near the river during

copied in no 72 (see Oct 15)
common *Larva*
8/1/90
THURSDAY, MARCH 23, 1876.

noted *Viburnum acerifolium*
very "scabrous" *dentato*
Aug 26, 1887! Hairless -
dark brown with a
notched head, elevated
above the rest of the
body a small tail.
Abundant. Long. 1.2.
Habitat on stems!
Dan Duran, June 1888
one tail, always single
head brown notched
white & green. ^{or purplish} like *Lern*
ovate lobes. White on
back & along back, in
middle & side upward
greenish green ^{or orange} projection
on the sides of the head

June 15/1887

FRIDAY, MARCH 24, 1876.

"Marsh cat" on yellow
flowering arum on
lower side. Aug 26, '87.
Spinners a kind of web
and "fencing". Brown
yellow, black hind &
first and last few
segments. Black line
on back & some of black
spine on each seg.
Head notched

(Hybrid in a web)

= 43(?) = 33(?)

Melasma platanus(?)

SATURDAY, MARCH 25, 1876.

Great leoper on ash
Aug 26, '87. Greenish
brown with several
which wintily
wraps. First segment
smaller, last for
long legs protruding

Eugenia almaria

SUNDAY, MARCH 26, 1876.

Mammals on a new
 road by St. Roch &
 Haven dorsal stripe
 & yellow stripe
 & blackish below
 2 yellow stripes purple
 & black stripes.
 Head reddish brown
 with whitish. Back
 brown. Ventrals
 1st eye & black.

MONDAY, MARCH 27, 1876.

rock oak Aug 87
 the longitudinal
 between the
 1st with black
 lines. Head and
 snout on 10th eye.
 large yellow. Last
 feet not used.
 also on black and
 white oak, and maple.
 the latter if this wood
 is common albifrons.
 8899

Eleon albifrons

TUESDAY, MARCH 28, 1876.

Cat on creek border
 back Sept 67. Body
 and head black.
 Thick short hair
 on sides brown
 on back white
 after the segment
 On 4th, 5th, 6th segs
 a short black
 tuft the hair is
 longer than the
 other hairs. On seventh
 hair is longer than
 the others. On 8th seg
 black. All hair
 mixed with white
 hair gray mostly appears
 (see July 12)

WEDNESDAY, MARCH 29, 1876.

Cat on grassy
 17 light green
 a whitish dorsal
 line. 1, 3, 4, 5, 11 segs
 marked with dark
 green and 7, 8, 9, 10
 marked with whitish
 a segment marked
 sp. Head greenish
 a light blue

Mammaster adjuncta

Already described

THURSDAY, MARCH 30, 1876.

Larva 1st stage and
 during 2nd stage
 into 1st stage. 1887.
 Green with the
 sub-dorsal longitudinal
 yellow line.
 Head green and
 not notched.
 2nd stage yellow
 line not reaching
 to head.
 longitudinal green with
 longitudinal white
 line. Head and legs
 green with white
 spots.

Cleora pulcherrima

FRIDAY, MARCH 31, 1876.

Larva 1st stage and
 2nd stage. 1887. Color black
 - dorsal red stripe,
 narrow. On sides a
 red yellow line
 marked with black,
 also a red line
 and a hump on 10th
 segment separately the
 red line to a red spot
 on 10th segment. Head
 black with white
 spots. Black on back
 longitudinal, striped
 with white very finely.

SATURDAY, APRIL 1, 1876.

Andromeda ligustrina

Andromeda ligustrina
 100 ft. in the S.E.
 like white of white
 bark - was the
 like to see long.
 bark - white
 none of the
 white spots
 was in the bark
 spots - 1st 3 spots
 and tail down
 1st 3 spots.

Datana major

SUNDAY, APRIL 2, 1876..

Petals on willows
 can be white. Natural
 color is brown. Back
 mostly brown with
 hints of brown
 on 3rd segment
 white bloom more
 distinct than brown
 and edged with
 white. *Harpyia* ^{multicauda} *occidentalis*
 as in my double sent.
 I have been told
 that they write a
 description in middle
 of line wanting
 as *Harpyia occidentalis*

MONDAY, APRIL 3, 1876.

Spalangia on *Aspidium*
 Sept 27. A small
 white spider-like insect
 on the underside of the
 leaves. It is very small
 and has a long body
 with a small head.
 It is very common on
 the underside of the
 leaves. It is very small
 and has a long body
 with a small head.

Imen-tina geminatus

TUESDAY, APRIL 4, 1876.

Tana on *Aspidium*
 4 87. A black spider
 on yellow and
 red. Head, spot
 on eye and
 black. Very
 little hair.

Datana periphras

WEDNESDAY, APRIL 5, 1876.

Spring calving square
 stunted weed. Sept 87.
 Head, frontal seg,
 horn, tail and legs
 ochre yellow and ching
 all but the latter sh. d
 with yellow. Body black
 above yellow beneath
 an interrupted yellow
 dorsal line. Interrupted
 lateral lines. Back
 dotted & sprinkled
 with yellow. Beneath
 lined with black in
 two directions.

Psilcephala

THURSDAY, APRIL 6, 1876.

lost on Lake Sept 87.
 Much enlarged especially
 the cephal. The last part
 was beneath it.
 A few white hairs to
 which the shed heads
 sticks and project in
 a string from the neck.
 Back brown, much
 streaked with white
 at the sides and
 white brown at the
 neck.

Makes a hole in wood
 for eggs.

Harnissinenna sexguttata

FRIDAY, APRIL 7, 1876.

Part green, enlarged larva
on witch hazel Sept 87.
color brown. On 2,
3, 6, 7 and 8 segments
2 green flanges. On
4 and 5 segs. 2 brown
flanges. On 11th 4 brown
points. Head brown
very slightly notched.

SATURDAY, APRIL 8, 1876.

Pterocampa eaten down
Sept 87. Green with 2
white lines on the back
on 2nd seg. 10th seg. on
2, 3 and 10th segments
also a dorsal stripe
aft. the 2nd a 3rd seg. on
On 4th & 10th 2 red
marks the latter that is
small. Slight lateral line
head green with 2 white
edged with brown lines.
Legs feet not used. on
feet black hairs. (See 200A)

Examination of the white (100)

89
SUNDAY, APRIL 9, 1876.

Sphinx on ash Sept 87
Yellow green above
slightly blue green
below. Lanting
line on sides of
white edged above
with green. Head
green with 2 white
stripes. Horn green
slightly reddish.
Tail speckled with
black.

Sphinx manduca?

It is per description of C. H. F. and

90
MONDAY, APRIL 10, 1876.

Large looper on birch
leaves maple etc Sept 87
larva small - head brown
in 4, 5, 6, 7, 8 segments
pair of large pointed
projections or "flanges"
In 2, 3 slightly over
2 points on top of 11th
(in other books)

Antropia ornamentalis?

TUESDAY, APRIL 11, 1876.

Same as 91. Same green
spots on sides and
on top of flat head
segments. 3 or 4
blackish subventral
lines.

Same as 91. Head
about with black
spots. Same as 91.

Same as 91. The
is more described
by a range of yellow
when young. Much later

same as 91. Same as 91.

WEDNESDAY, APRIL 12, 1876.

Same as 91? Not yellow?
Same as 91. Not yellow?
2, 3, 4, 5, 6, 7, 8, 9 & last
segment. Head with
a tuft like 91.

Same as 91
Head of black with
white spots. 3 or 4
abdominal black lines
other less distinct
Black spots on sides
short white hairs.
Much subject to variation
(See 91)

Utricularia adscirga

93
THURSDAY, APRIL 13, 1876.

On bur-weed Sept 17
Black & head black
with thin white
bars along sides
a row of yellow crescent
and 2 rows of sub-
dorsal faint yellow
spots

Don't the same
descripta of *descripta*
as *descripta* ~ 415?

94 Late 5-5 band over white 5-5
space V-VI which are and is pale
ochraceous brown. Venter black
than sides. No. 10. Head brown
with white on central segment
other testaceous & pale above.

14
FRIDAY, APRIL 14, 1876.

Blackberry Sept 17. 333
General resemblance to
blackberry. Black & head
black. Thin white hair
coming from warts. On
ant 3 & post 3 segments
brownish yellow. On
sides skin brownish
Another from a boy in Highland
park June 1875. 40 shiny black
in winter. 2.7 ant Red velvet
like a broad diffuse faint
redish 5-5 stripe, including
to row V & VI. Structure of
transverse a broad black & space
out mostly pale hair short & body
very white but brown red
on 3-6, 12. Spinal white

SATURDAY, APRIL 15, 1876.

Unicorn on beach
 brown with green
 neck. Back brown
 strip of back white
 V-shaped and
 on 3, 4, 5th segs. large
 white spots. Head
 brown black lines
 forked, sharp on 1 & 2

also on 1st seg with
 large
 Hump on 1st seg. 2 pointed,
 2nd on 8, double on
 on 11

on 7 (see 825)
 (This is a rough
 description of *Cochlosays biguttatus*)

SUNDAY, APRIL 16, 1876.

"Rods"

Buttala on limest
 date June 5, 1888
 all gray with small
 longitudinal rows of
 black points. The black
 elevations on 11th segment
 beneath yellowish
 green. Head gray
 with black line
 black spots on collar
 row of little white
 spots along back side
 below, where the colors
 meet.

MONDAY, APRIL 17, 1876.

On elm June 1888
 Light green, humped
 on 11th segment
 yellow lateral and
 dorsal lines and
 one between the
 latter pointed upward
 where the hump comes.
 Also back spotted
 with yellow
 Dec. July 12, 1888

Pyroptila pyraustoides

TUESDAY, APRIL 18, 1876.

Panthea scribneri
 eggs laid June 26, 1888
 round green and rough

FRIDAY, APRIL 21, 1876.

Egg of *Euplexia lucifera*.
 Nearly spherical flattened
 at base marked with a
 reticulation, the radial ribs and
 numerous transverse ridges
 the former somewhat are
 missing to a degree in top.
 Color whitish with a
 circle around the center and
 a spot on top of each side
 from these are the
 or less confluent. Aug. 18th
 Laid about 50 eggs.
 Larva white with black
 spots from above which
 are a brown. Head legs
 and cervical spot black.

Aug 20th fed 1877

SATURDAY, APRIL 22, 1876.

They eat their egg shells.
 It walks like a spider
 having only 10 legs. Hatched
 Aug. 11. Remains stretched out
 on the back of the leaf.

From Aug. 16. Larva transparent
 whitish with black dots
 finer as before. Head
 mouth parts black.

2 Aug 20

3 Aug 25 Larva
 first land on a leaf
 all the while in the air.
 black spots.

4 Aug 27 Larva lateral
 blackish above & sub dorsal
 white & dorsal part of
 5 Aug 28 Larva close spot marks
 dorsal brown part. marks

white spots on the back of the larva

SUNDAY, APRIL 23, 1876.

Egg of *Tarache arctoides*
 conical, flat at bottom
 marked by 14 longitudinal
 ribs, attenuate on
 slightly project at top
 the ribs not quite
 reaching, and many
 transverse ridges on by
 slightly elevated.
 Color ashy green
 width .25 mm. length .35 mm.
 Aug. 1876.

Larva furnished with
 10 legs. Head a greenish
 green, elevated around
 each segment, there
 a narrow band. Head, cerise

MONDAY, APRIL 24, 1876.

found and perhaps ~~more~~
 about Aug. 11. Set 26

1873

TUESDAY, APRIL 25, 1876.

Egg of *Agaveia crocata*
 smooth, whitish
 flattened above & below
 color green becoming
 red. Length about .6 mm
 Aug 1888

Heterostoma, whitish green
 with 2 subdorsal black
 stripes. Head & cervical
 shield pale orange. Head
 also black stripe beneath
 thorax whitish green
 with 2 subdorsal
 and one stripe below
 reddish brown. Head
 concolorous with body
 Spot pale whitish

WEDNESDAY, APRIL 26, 1876.

green with two lateral
 reddish brown lines contin-
 uous with the dorsal, and
 a band beneath.
 (Really same as before)
 Spout & same. Back
 dark whitish green,
 beneath paler green
 stripes reddish brown,
 one on each side of
 head. A faint darker
 green dorsal line
 Spot & back pale
 all over a faint
 color pale, a dorsal band
 in the middle. Head concolorous
 Hibernatus.

THURSDAY, APRIL 27, 1876.

about 1/2 "corn" in grass.
 Aug. 1874 Black shaded
 with reddish at sides
 very faint lateral
 line and two
 sub dorsal brown
 only on last 3 or 4
 segments. Head black
 Spinules white,
 tufts of black rather
 short hairs from segs
 8 to a seg.

Pupa (on coming) cylindrical
 tapering abruptly posteriorly
 brown closely granulated
 wing cases finely creased
 acuminate short, curved,

FRIDAY, APRIL 28, 1876.

? the same shape? as
 the last abd. seg. with
 dark reddish brown,
 not shiny. 'Corn' quite
 long, composed of silk
 into which are interwoven
 bits of grass stems etc.

patella noctuigena

described by Thaxter

another specimen from N.H.
 July 10 1875. Also about to
 'corn' in road. "Lateral line" is
 subterminal. Two hairs mixed
 in the middle from I and II (see below)

SATURDAY, APRIL 29, 1876.

On poplar Aug 1888
 Light green with
 2 subdorsal yellowish
 stripes and trace of
 lateral line of feet
 on segments.
 Rests flat on back
 " legs in a line &
 extended. Body
 taper each way from
 middle.

Empoasca vittata

As hatched & laid eggs in
 water in 1888. Larva

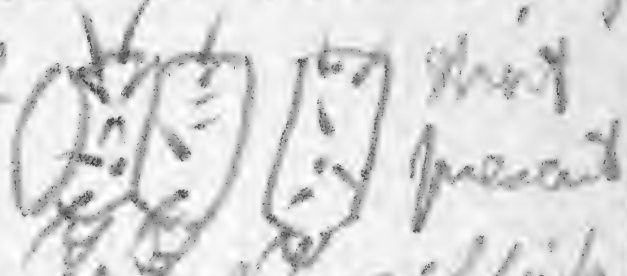
2 colorless transparent eggs on back of poplar.
truncatoides Jefferson Highlands, June 18 1895.
 flattened, less than hemispherical & diam.
 .35 high. shiny. plain. head shows transverse
 but magnified ($\frac{1}{2}$ inch) articulation with
 erect, broad, double edged & distinct but
 flat. pentagonal - hexagonal, rounded or
 elongate with very regular, rounded or
 micropyle but not above smaller cap
 flattened. Hatched June 22. Hd pale yellow ringed
 with, greenish, no cross-tes. flattened, anal feet apparently
 normal, all used. Setae fine, pale. (total 1/8 inch .3)

all 2 3 4 5 6 7 8 9 10

104 A

2 colorless transparent eggs on back of Pop.
truncatoides Jefferson Highlands June 18 1895
Flattened, less than hemispherical & diam
.35 high, shiny. Grain & leaf show through
but magnified. ($\frac{1}{2}$ inch) Reticulation mod-
erately broad, double edged & distinct but
flat, pentagonal-hexagonal, rounded or
elongate, not very regular, rounded at
micropyle but not much smaller, apex
flattened. Hatched June 22 Hd pale tobacco tinged
body greenish, no cracks, flattened, anal feet slightly
normal, all used. Setae fine, pale, stiff (1/8 hd. 3)

slightly swollen at top, normal in sty part (no
vi seen) 3 on leg plate, the middle one long
the others short. Hd cordate, mouth brown, eyes
black. 10 died setae perfectly normal
pale; 2 off each, 3-4 with ii all



Molt June 29 Hd. 6 Pale green, hd a little yellowish
mauve, a yellowish red line. Late more distinct
anal fold spreading both caudad and laterad, bases
folded.

104
SATURDAY, APRIL 29, 1876.

On 20th Aug 1888
light green with
2 subventral yellowish
spots and two
lateral lines of
small spots.
Ribs black on back
& sides. Head
with black spots.
Taper ends very fine
white.

Slender, 10 in. long.

Ag. 10 in. long. 1888. Long

20
SUNDAY, APRIL 30, 1876.

one like the third of a
series, flat below, outline
more or less circular. Color
pale yellowish green. Very
slightly & closely punctured
diameters about 9 mm. ^{indicated by}
black, flattened
on the ventral side, dorsal
side rounded. Finely punctured
sp. closely appressed, heavy
brownish dorsal surface
unmarked, most of
very rounded. 10 in. tall
with crown, diam 4, 5 mm
low, narrow, raised.

spd
91

(see 2013)

WEDNESDAY, MAY 3, 1876.

Zolype on oak Aug 1898
 with lateral projection
 covered with thin hairs.
 Color brownish marked
 with whitish in three
 spots on the back and
 a dorsal black line
 whitish on sides and beneath.
 Head brown over head
 with white at the eyes

THURSDAY, MAY 4, 1876.

SUNDAY, MAY 7, 1876.

Young larva on white
oak. May 1888 about 5 mm
long. Last part not wide
color yellow with lateral
& dorsal black stripes
Head cervical shield
abdominal legs and
last segment shiny black
color ^{light} yellow with 4
lateral broad ^{pale} yellow
stripes. Abdomen as
above. Molt same
these stripes beneath
molt same. Stripes
broad. white. Head
cervical shield and
anal plate black.



MONDAY, MAY 8, 1876.

Molt same: stripes
not so wide but still
as wide as the intervening
space. Cervical shield
and legs dull reddish
yellow. Head and
anal plate black.

Latana contracta

Some specimens have
stripes narrower than
intervening space, or
even the upper ones partly
wanting. Color pale
yellow to almost white

102
TUESDAY, MAY 9, 1876.

Datana
tristodonta on *Lucina*
 Aug 1871. Young larva
 yellowish marked
 on the brown dorsal
 and around thoracic
 segments, also the subventral
 brown lines. Head with
 cervical shield black.
 Last joint not black,
 marked with black
 spots. Reddish
 brown with 4 lateral
 yellowish lines on
 each side, narrower
 than the white
 spaces. Yellow line
 below. Head as above.

WEDNESDAY, MAY 10, 1876.

Datana & anal plates
 (p. 102). Red more distinct
 around thoracic segments
 and dorsally on 6, 7 & 9, 10.
Nov 23 Aug 23. Larva
 more uniform reddish
Nov 29 Aug 31. Black
 stripes yellow, fine.
 Head, cervical shield
 & anal plates black.
 Rather long white hairs
 Aug 6 to 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31.
tristodonta. (Sp. 1 & 2) anal plates
 but not marked & body black
 & lateral & 3 ventral narrow
 pale yellow lines, not continuous
 post. bases of legs & spots on 1st
 seg, brownish red. Hair white
 on the anal seg. (See 00205)
Datana Oregoni

137 dtd 2/26/90 110

THURSDAY, MAY 11, 1876

dogwood
anaple

with hazel
brick
hickory

"Double" egg
Young larva on
Aug 1st. Reddish brown
white green on 1, 2, 3 segment
a white, a line down
back and spot on 10th
Head red. On 1, 4, 5, 6, 7, 8
9, 11, 12 legs a pair of black
horns. Horns on 1st three
pronged, the other with
a knob in center and
horn on the end, each
anterior horn a black
bluish spot. Legs slender
2nd pair not used

dtd 2/22/90 on birch.
Hatched 2/22/90 on birch.

FRIDAY, MAY 12, 1876.

dark wine red. Body
cylindrical, smooth and
slender with a small
spot on 1st. Feet normal
the anal pair slender
rather long. The clasper
a small, rounded. On 1st
2nd large brown on
pair of horns curved
three branched, curved
with a shorter spine
near the base all dark
blackish brown. On joint
5-10, 12 & 13 from 2nd
shiny bases a pair of
smaller but slender
horns not branched (unpr)

MONDAY, MAY 15, 1876.

one spot below the spiracle
on each segment and
another longer one
between the wings, these
being much alternated
with the spots of the
color of the head, ears
shield, anal plates
all legs (except tibiae)
on the sides and
on the 2, 3, 10, 11 segments
dark brownish red.
Strigose on the sides
of the legs white dots.
Thin white hairs. Eyes brown
faintly red. Antennae lighter.
Between major legs

TUESDAY, MAY 16, 1876.

On poplar Aug 58. Shape
like BB104, green with
2 subdorsal yellow lines
on 2, 3, 6, 7, 8, 10, 11, 12
a reddish brown patch
between the lines with
some yellow between.
On 1 & 5 segs. 2 brown dots
2 black marks on head

= 104

Chrysomelid tribus

The first two are
 yellow
 The third is a
 yellowish green
 The fourth is a
 yellowish green
 The fifth is a
 yellowish green
 The sixth is a
 yellowish green
 The seventh is a
 yellowish green
 The eighth is a
 yellowish green
 The ninth is a
 yellowish green
 The tenth is a
 yellowish green
 The eleventh is a
 yellowish green
 The twelfth is a
 yellowish green
 The thirteenth is a
 yellowish green
 The fourteenth is a
 yellowish green
 The fifteenth is a
 yellowish green
 The sixteenth is a
 yellowish green
 The seventeenth is a
 yellowish green
 The eighteenth is a
 yellowish green
 The nineteenth is a
 yellowish green
 The twentieth is a
 yellowish green
 The twenty-first is a
 yellowish green
 The twenty-second is a
 yellowish green
 The twenty-third is a
 yellowish green
 The twenty-fourth is a
 yellowish green
 The twenty-fifth is a
 yellowish green
 The twenty-sixth is a
 yellowish green
 The twenty-seventh is a
 yellowish green
 The twenty-eighth is a
 yellowish green
 The twenty-ninth is a
 yellowish green
 The thirtieth is a
 yellowish green
 The thirty-first is a
 yellowish green
 The thirty-second is a
 yellowish green
 The thirty-third is a
 yellowish green
 The thirty-fourth is a
 yellowish green
 The thirty-fifth is a
 yellowish green
 The thirty-sixth is a
 yellowish green
 The thirty-seventh is a
 yellowish green
 The thirty-eighth is a
 yellowish green
 The thirty-ninth is a
 yellowish green
 The fortieth is a
 yellowish green
 The forty-first is a
 yellowish green
 The forty-second is a
 yellowish green
 The forty-third is a
 yellowish green
 The forty-fourth is a
 yellowish green
 The forty-fifth is a
 yellowish green
 The forty-sixth is a
 yellowish green
 The forty-seventh is a
 yellowish green
 The forty-eighth is a
 yellowish green
 The forty-ninth is a
 yellowish green
 The fiftieth is a
 yellowish green
 The fifty-first is a
 yellowish green
 The fifty-second is a
 yellowish green
 The fifty-third is a
 yellowish green
 The fifty-fourth is a
 yellowish green
 The fifty-fifth is a
 yellowish green
 The fifty-sixth is a
 yellowish green
 The fifty-seventh is a
 yellowish green
 The fifty-eighth is a
 yellowish green
 The fifty-ninth is a
 yellowish green
 The sixtieth is a
 yellowish green
 The sixty-first is a
 yellowish green
 The sixty-second is a
 yellowish green
 The sixty-third is a
 yellowish green
 The sixty-fourth is a
 yellowish green
 The sixty-fifth is a
 yellowish green
 The sixty-sixth is a
 yellowish green
 The sixty-seventh is a
 yellowish green
 The sixty-eighth is a
 yellowish green
 The sixty-ninth is a
 yellowish green
 The seventieth is a
 yellowish green
 The seventy-first is a
 yellowish green
 The seventy-second is a
 yellowish green
 The seventy-third is a
 yellowish green
 The seventy-fourth is a
 yellowish green
 The seventy-fifth is a
 yellowish green
 The seventy-sixth is a
 yellowish green
 The seventy-seventh is a
 yellowish green
 The seventy-eighth is a
 yellowish green
 The seventy-ninth is a
 yellowish green
 The eightieth is a
 yellowish green
 The eighty-first is a
 yellowish green
 The eighty-second is a
 yellowish green
 The eighty-third is a
 yellowish green
 The eighty-fourth is a
 yellowish green
 The eighty-fifth is a
 yellowish green
 The eighty-sixth is a
 yellowish green
 The eighty-seventh is a
 yellowish green
 The eighty-eighth is a
 yellowish green
 The eighty-ninth is a
 yellowish green
 The ninetieth is a
 yellowish green
 The ninety-first is a
 yellowish green
 The ninety-second is a
 yellowish green
 The ninety-third is a
 yellowish green
 The ninety-fourth is a
 yellowish green
 The ninety-fifth is a
 yellowish green
 The ninety-sixth is a
 yellowish green
 The ninety-seventh is a
 yellowish green
 The ninety-eighth is a
 yellowish green
 The ninety-ninth is a
 yellowish green
 The hundredth is a
 yellowish green

[illegible]

13A
leaf 5 or 6 and leaf plate. 2 and 1 just small
spots with single dots, now dead
like 113 but no red except on pines on 3
208 July 7 id. 3.2. 4.1. 113

FRIDAY, MAY 19, 1876.

Substant on white side
 Aug 188. ... with
 ... edges of ...
 brown edged with
 yellow. ...
 ... at ... brown,
 yellow at base.


Flanby lateral ...
 line and row of red
 spots edged with yellow
 before operacles.

Head green with ten
 side ... meeting on
 top of mottled brownish
 with yellow edge ...
 having a tooth internally.
 Tails green with

SATURDAY, MAY 20, 1876.

... stings, long.
 Mount Saine. Tails quite

... on ...
 ... 1896

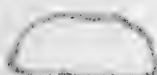
do  flattened, less than
 hemispherical, ...
 not shiny, translucent ...
 greenish, found ...

... height ...
 ...
 ...

... July 21 ...
 ...
 ...

...
 (See back, ...)

Egg on white oak leaf
25. July 1896

 flattened, less than
hemispherical, lustre yet
not shiny, translucent but
greenish, ground glass like
0.4 height .6 w. Details
conspicuous, 6-angled, narrow,
regular showing 10-15 angles
outlined by distinct lines.

Adm. & hatch July 21
evidently = oak fruit tart
H. maritima

2 shippers
and 2 little
Hutchinson's trees
on black sand soil

FRIDAY, MAY 19, 1876.

collected on white oak
 Aug 188. Green with
 dorsal stripe of reddish
 brown edged with
 yellow. Dorsal hump
 as a cup, brown,
 yellow at base.
 Lateral lateral yellow
 line and row of red
 spots edged with yellow
 before operacles.
 Head green with two
 red bands meeting on
 top of snout. Brownish
 above yellow edge out
 having a tooth internally.
 Tails green with

SATURDAY, MAY 20, 1876.

red stripes, long.
 Mouth same. Ventrals quite
 short, hardly more than
 long hind foot. The
 dorsal stripe is not of even
 width but slightly ex-
 panded on head, very
 segments, contrasting again
 between them. There seems
 to be a little more white
 at the base of the dorsal
 all over it and in head.

Heterocampa maritima
 (See book, Am. Nat. 818 p. 1004)

115
SUNDAY, MAY 21, 1876.

Larva on *Viola* p. m.
and chestnut. Aug 31.
1888. Look like *Adiantum*
color green with
white bloom
subventral brown
yellow lines, and
plates with yellow
border. Head & feet
green.

= 25

41 On a wormy grass yellow fly
N.H. Aug 7 1891. Ad 3 1/2 Same, a
few no hair from; whole length
especially 6 & 7. No black marks
a bit except on joint 2.
A dead larva found on yellow bird

(41 cont)
MONDAY, MAY 22, 1876.

~~preceded by an oblique black
patch, strongly suggesting a
haloed *Tachina* egg!
vent large, it almost, head
rather thick, not long more
obscure body but joint also
indented, white from 2 on
a light red pencil; from
up of base of m 5 and 12
a red triangular single dorsal
mark white. a few long
white hairs from 13
a faint d. and lateral
dusky stripe not brown
pigment but more trans-
parent than other parts
V, II on 12 form a triangular~~

Shed H black except on thor. P. 12 1/2 black; tail 1/2 red, 12 red & black side of thor. (blow)

129
Cat No 11493
May 6 1895
No 21 larva. Same

TUESDAY, MAY 23, 1876.

Larva of the Alder Leaf Beetle
 2nd inst. on May 23. Last
 feet small. In 1st
 inst. on 5 and 6 segs
 holes. Body purple, no
 white line. 1st to 5th
 segs at top, and
 oblique line, a white
 line on each seg. 1st
 white lateral line
 narrow shaded white
 10th with segs shaded
 with a yellowish line
 head, gray, with many
 dark spots, a white
 line on each side
 Notodonta strigula

WEDNESDAY, MAY 24, 1876.

5/22/90

Upatela? on Alder leaves Sept 18
 Light yellowish green, a
 purple brown dorsal stripe
 edged with a yellowish
 interrupted line. 5th seg. and
 branching on 7, 8, 9 & 10 to
 twelve a reddish yellow
 pattern. Cerebral line
 green with 2 black lines.
 Head purplish, black on
 top & hind side. Body
 with 10-12 segs. 1st
 segment black.
 In cocoon of the Alder
 becomes red on prolegs &
 pupate. In cocoon of the Alder etc.
 Upatela trivittata

THURSDAY, MAY 25, 1876.

Parorgyptis or *Leucyptis*?
Body & head black.

Thin yellowish brown
hair from warts, trans

verse could say, on
2nd, two black points

on 4, & 11, one
black point, composed

of two tufts, close together

* should be seg 1 = joint 2

Chrysomelid *Leucyptis* *Parorgyptis*
No. 100 (23) June 3, 1876
not in a house but hanging
in side and spinning down.
Yellowish & black band
over eyes & another across
it after 1st, the trans. 4 & 5 also
black, but 1st trans. black
white, broadly gray & with
a central d. stripe. 2 trans.
red, broader, lateral, all
joint. Hair from warts, short
vii, long lower part of iii and
s-v. and all of. Spine leaves together
Shed July 27 Hd 2.5 ± black, a
yellow band across & trisected
by the black sutures, Body all
pale white with long white
hair from warts. In house
& 2 leaves withed together.
Shed Aug 1 Hd 2.5 ± same (shd
1.4 mm) Shd Dec 7 Hd 2.5 (shd 1.4 2.5)

Chironomus tentans on the
Lake Ballport 23 July 1896
Not in a house, but flying
in and spinning, etc.
Hd yellow & black band
over eyes & another across
at apex of fr. Antennae also
black, leg. 1st 2 uncol. Body
white, broadly gray & with
a central d. stripe, a narrow
red & white patch, all
faint. Hair from ant. short
iii, long from base of iii and
v-vi. Dist. acc. if. Spur hairs together
Shed July 27 Hd $2.5 \pm$ black, a
yellow band across & trisected
by the black sutures. Body all
pale white with long white
hairs from wings. In house
& 2 leaves webbed together.
Shed Aug 1 Hd $2.5 \pm$ same (Shed
1.9 mm) Shed Aug 7 Hd 3.5 (Shed 2.5)

same sheet by 14 4.5 (The
 rd 3.5) same the white
 body has faint dusky
 red line below it.

Calc.

1.5		III	.63
1.9		IV	.83
2.5		V	1.10
3.5	3	VI	1.45
			1.90
4.5	4.5	VII	2.50
			3.42
			4.50

THURSDAY, MAY 25, 1876.

~~Variegated or lively left~~
 Body & head black.

Thin yellowish brown
 lines from vertex, trans-
 versely across segs. on

seg 2nd, two black points
 on 4, & 11, one

black knot composed
 of two tufts, close together

*thrust in seg 1 = joint 2

FRIDAY, MAY 26, 1876.

Concealed in oak leaves
 Sept 588. Body white
 scuticellous, the
 prothoracic shield white
 Head black and shiny
 whitish on the sides
 and mouth of ant.
 right yellow in a trans-
 verse band above the mouth
 extending into the ant.
 black near the black line
 following the joint of
 the head segs. 26
 in antenae also an
 irregular, the central
 one curved upwardly.
 Body curved by the

SATURDAY, MAY 27, 1876.

Very white. Larva
10 mm or more, arising
in little tufts from
the stem. Fine black
hair from the joints
of the body found

Another on Quercus macrocarpa
Hattisburgh, N.Y. Aug 1894.

Acronyctus? in house of white
silk made partly opaque
with flocculent white silk,
slightly curving over apex
of leaf on both sides. Hd
rounded, shining light yellow
ish mottled with black
W 3 mm. (see Aug 30)

120

SUNDAY, MAY 28, 1876.

Cecidomyia larvae on
wild cherry, Sept. 1884.
Heavy double pointed on both
and short on one with
Body reddish brown
mottled blackish on the
back and sides with
line. Sides on the sides
esp. green, yellow above.
On 4 & 10 a yellow V
jointless pointed. Head
nearly uniform brown.

11/27/90

MONDAY, MAY 29, 1876.

Limacodes on wild cherry
over the BB 12. Body with
longitudinal ^{sd & supersedes} slight
elevations ^{on the}
the upper a little darker
green than the lower a
little, whitish subventrally.
Body terminally in a
short tail, color pale
whitish green.

Pachanodia geminata
(uncl. Packard)

Both = 256, = BB 12 dark?

TUESDAY, MAY 30, 1876.

Eggs supposed to be of *Actia*
locta, ~~see~~ *anthologia*, ^{May 1876}
transversaria, pale whitish
yellow; subconical, the
apex rounded, the base
much flattened and
the broadest part. Surface
smooth so far as could
see and shiny.

WEDNESDAY, MAY 31, 1876.

E. imitator. Pupa.
 black, the body coarsely
 punctured, bet. segs. finely
 creased and dark brown.
 the posterior edges of the segs
 more or less rounded with
 pointed projection. Wing
 cases with 7 or 8 joints
 covering the principal
 veins. Pads of hair a
 long, wrinkled elevation.
 cremaster a large thick
 spine, wrinkled below.
 coarsely granulated above.
 5mm long 2mm across 1.5mm
 thick only very little tapering
 ending in 2 points at the
 outer edges, the depression
 but there is slight

THURSDAY, JUNE 1, 1876.

Pupa *Batomus dreyerlii*
 Similar to *E. imitator*
 but larger. Black.
 wing cases wrinkled.
 body segments punctured
 cremaster two, very
 short & blunt, with each
 3 spines (called the cremas-
 to by Mr. Bentham Miller)
 the outer ones sometimes
 very short, in a line
 in the lateral diameter
 of the body.

(In *E. imitator* the
 cremasters have only
 2 divergent spines)

FRIDAY, JUNE 2, 1876.

Lycaena? on *V. acerifolium*
 May 30, 1879. Three long
 3mm wide, rather flattened
 segments 4-11 wrinkled
 up dorsally. Head small &
 retractile & brown shiny.
 Light green, dorsal fold
 paler, a brown dorsal
 stripe. Body closely covered
 with minute white spots
 and minute piles whitest
 4 on legs before and
 behind. 11th seg. 5 & 6
 is a darker shading
 concolorous with dorsal
 shade. D. shade not
 extending beyond the dorsal

SATURDAY, JUNE 3, 1876.

fold. Legs also folded
 laterally below spiracles.
Pupa June 4 On back of leaf
 by tail and girdle.
 Lateral outline flat below,
 dorsum of abdomen arched
 depressed behind thorax which
 is again arched & narrower
 than abdomen, color brownish
 with dark dorsal line
 & 4 dark subdorsal streaks
 on abdomen, 2 behind
 thorax & 2 posteriorly.

SUNDAY, JUNE 4, 1876.

On grass June 1, 1876.

Grass green, head greenish
 Testaceous with a wedge shaped
 spot on each side ~~the head~~
 extending from above the
 middle ^{appearing} downward over the eyes
 A broad white ^{stigmatal} ~~lateral~~
 line, edged above with
 green darker than ground
 color, a narrow subdorsal
 & dorsal white line the
 latter edged with
 darker green. Body smooth,
 a few whitish hairs each
 surrounded by a minute
 whitish ring. Top of joint
 cervical plate, concave

MONDAY, JUNE 5, 1876.

with the head. Legs
 green, thoracic feet
 tinged with brownish.

TUESDAY, JUNE 6, 1876.

A. octomaculata from 1st
 Jun 12, 1889. Body cylindrical
 when it is ¹² hatched up
 at 5 & 12 ¹² segs. ¹² segs. ¹² segs. ¹² segs.
 orange with ³⁰ black
 spots with white hair
 indistinctly mottled
 with brownish. Body
 white with many fine
 transverse dark lines
 lines 5 to 8 on each
 segment. On the middle
 of each seg ^{2, 3, 4, 13} is a transverse
 ray band bright on
 the side & often obsolete
 dorsally. ~~sometimes~~
 reflecting 1 or more of the

WEDNESDAY, JUNE 7, 1876.

~~brown~~
black lines in which is
situated 2 rows of alter-
nating black spots inter-
rupting the brown lines
& furnished each with a
white hair. A ~~cinnamomea~~
subventral row of white
spots concolorous with the
ground color, of varying
size, on feet joints 11 & 12
much largest. Venter
bluish white shaded
with dark brown the nape
bands entire red, spotted
with black. Base of legs
orange with a black spot.
Legs black outwardly.

THURSDAY, JUNE 8, 1876.

deeper dirty brown
The larva appears
bluish instead of white
on account of the ^{appearance} of the black line
~~the~~ of the black line
into the white.
On woodbine.

128
FRIDAY, JUNE 9, 1876.

Fortified(?) on the floor
a seed of pansy at
Plattin & Rhinobol
call over June 20, 1876
Head a large curved
spot shining black.
Body citrine yellow
with a row of black
filipinos dots per seg.
doubled dorsally by
2 more spots per seg.
(Don't not very careful)

SATURDAY, JUNE 10, 1876

Apuleia? m. elen June 27, '89
 Head dark markings red
 with blackish shading
 a large pale mark A
 above the mouth. Body
 pale violet with a
 broad black dorsal
 stripe undulating towards
 the head and ending
 on joint 12 in a large
 elevated circular
 black spot bearing
 black warts furnished
 a few tiny hairs.
 On each joint a row of
 cream colored warts
 furnished a few tiny

SUNDAY, JUNE 11, 1876.

hairs. Two of them were
 situated in the black
 dorsal band & the band
 throws out a spine on each
 side, half enclosing a
 wire (on joint 5-11)
 A dorsal row of red
 spots, 2 per seg! A faint
 yellowish subdorsal
 line. Segmented & sub-
 ventral spaces & venter
 duller colored than
 subdorsal space. Sides
 of the body furnished the
 white hairs. Spiracles
 black. Length 25 mm
 (See 00389 for mouth)

130
MONDAY, JUNE 12, 1876.

Hadenia? larva found
in the cellar
July 7, 1889. Head pale
brown with black
reticulation. most
distinct in the middle
of the lobes. Body
pale livid with a
pinkish tinge, im-
maculate beneath.
Dorsum & sides covered
irregularly with dirty
brown marks & ^{diffuse} retic-
ulation most distinct
centrally on the segment.
Cervical spot dull
brown. Thorax in

TUESDAY, JUNE 13, 1876.

larva not posteriorly
it is irregularly excavate
from the middle
dents are indicated
the obsolete dorsal line
faintly black, the
feet short pale brown

BB6 cont.

WEDNESDAY, JUNE 14, 1876.

On V. St. Martinianus at
 Wata Co. July 30, 1890.
 Hd dull whitish, ~~mouth~~
 white, jaws & eyes black.
 W 1.3 Body whitish with
 black dorsal line
 somewhat interrupted
 in seg. & sutures. Legs
 clothed with yellow
 hair, from sides, rather
 thin in center.
W 1.3 Hd round
 dead white W 1.6 mm
 Jaws & eyes black. Body
 white & interrupted
 black dorsal line
 Long abundant white

C. 5 7 .8 1.0 1.3 1.6 2.1 2.6 3.2
 7 - - 1.3 1.6 2.1 2.6 3.2

THURSDAY, JUNE 15, 1876.

Head hair like cotton
 & a thin pencil of black
 hair from 12 dorsal.
 Venter somewhat greenish
W 1.3 Hd round W 2.1 mm
 Body white, dorsal line
 and center wavy. Hair
 black is white, a few black
 hairs represent pencil
 on 12. Length 2.0 mm
W 1.3 Hd W 2.6 mm Body
 same pencil on 12 thin, black
 tipped with white. A large
 black ~~spot~~ ^{mark} on venter of
 5, 6 & 11 (now on 12). D. line
 black. 6-12 broken at seg
 sutures. Hair very fluffy white
 the feet blackish.

FRIDAY, JUNE 16, 1876. *W. 43.2*

1. Snout 48-55 Red to white a narrow
 black band over the
 eyes, the center of the
 snout is thin black line
 2. Body white, a dorsal line
 with black spots. Not
 white, the dorsal fin
 from 3, 4 & 12, shorter over
 not reaching above other fin
 on 6-11. The feet black
 above the body, the dorsal
 red, the lateral spots are
 inverted cordates, the dorsal
 all with a band. Eyes black
 all in line with the ventral
 center of the body.
 (Some color yellow over yellow
 line. Some feet black
 tipped back black.)

SATURDAY, JUNE 17, 1876. 1382

Cyrtia adarcta
mae chrysalis

{ June 17 - October 5 }
1882

[illegible]

152
SUNDAY, JUNE 18, 1876.

153
MONDAY, JUNE 19, 1876.

3 more C. Malanta
made chrysalis.

TUESDAY, JUNE 20, 1876.

Cynthia Atalanta
shade chrysalis.
He was grey with
white spines, instead
of black. (fly in lin (Aug. 1))

WEDNESDAY, JUNE 21, 1876.

THURSDAY, JUNE 22, 1876.

Cynthia stalacta m. f.
made his chrysalis
in the night.

FRIDAY, JUNE 23, 1876.

13
SATURDAY, JUNE 24, 1876. 82

1 *Cynthia atalanta* chry.
Got lot of little cater-
pillars on elm leaf.
Actia Texa I think.
Actia Virginia laid
140 eggs in *Actia* box.

14
SUNDAY, JUNE 25, 1876. 82

1 *Cynthia atalanta* chry.
Got 3 chrysalids of
Vanessa antiopa.
1 cat. of *popillia*.

MONDAY, JUNE 26, 1876. 82

Got 2 Chrysallides & 1
cat. of *V. antispai*.
Strophodryocampa
came out. (*Pezomachus* minor)

TUESDAY, JUNE 27, 1876.

Cynthia afalanta
came out, no 1.
Bryocampa senatoria
came out.
Got bunches caterpillars

1876
WEDNESDAY, JUNE 28, 1876. 82

Eggs of *Arctia virginica*
hatched.

One *Arctia leucophaea* out
Cynthera abolartha no 2.
out, 9½ days.

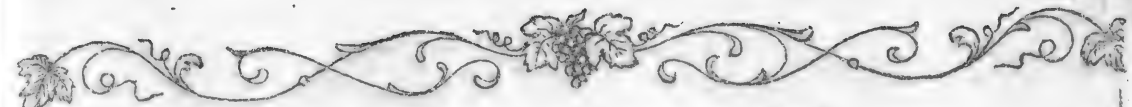
200 caterpillars on
wild morning glory,
described in other book.

1876
THURSDAY, JUNE 29, 1876.



FRIDAY, JUNE 30, 1876.

A large rectangular box with a thin border, intended for handwritten entries for the day of Friday, June 30, 1876.



SATURDAY, JULY 1, 1876.

A large rectangular box with a thin border, intended for handwritten entries for the day of Saturday, July 1, 1876.

SUNDAY, JULY 2, 1876.

Got little failed
caterpillar on poplar.
Got also a number
of eggs on the back
of a poplar leaf.
Babe (*Lynethia atalanta*)
prepared a house
for transformations.

MONDAY, JULY 3, 1876.

^{was}
Babe, hung off 6 a.m.

192

TUESDAY, JULY 4, 1876.

Babe chrysalis.
Cynathea atalanta
no 7 out. Lib 90.

WEDNESDAY, JULY 5, 1876.

Tanessa Antiocha out

THURSDAY, JULY 6, 1876.

Vanessa Antiope out.
Got Eudorina Zityrus
caterpillars at Will's.
Got some eggs on
a locust leaf.

FRIDAY, JULY 7, 1876.

Vanessa Antiope out
Deilephila lineata out.
Got 2 Mania Archippe
caterpillars across
the river.

196
SATURDAY, JULY 8, 1876.

Locust leaf (July 6)
eggs hatched, little bug.
Got some eggs on
ash at a back fence.
Got more Eudamiae
Litane caterpillars.
Got brown speckled
with blackish cater-
pillar on Strawberry ^{box 26}

197
SUNDAY, JULY 9, 1876.

Got elm caterpillars
and eggs.
Got Polysommata
Cornutus w tails.

198

MONDAY, JULY 10, 1876

Eggs on milkweed
(*Euphorbia* *Egls*) hatched

199

TUESDAY, JULY 11, 1876.

Got *Polyommatus cornutus*
male & female *H. senatoria*.
Hawaii *Archippus* shed
their skins for the 2nd
time since we got them.
The 6-legged yellow cat.
are nearly all chrysalids.
Got some small cats
on elm and ash.
Let most of the *A. texensis*⁹⁰

WEDNESDAY, JULY 12, 1876. 62

1877 (55) On glider twig 37 ft
 1st molted, black, a few
 hairs 1.8 mm long. 1st molt
 molted on 12th. Hair thick
 but short, orangey brown
 bases brown tipped with
 black white, about
 subventral. On 5, 7 & 12
 a black dorsal line
 higher than the rest of
 hairs & in 3rd space
 longer than 4-13. Hair
 hard brown. Molt May 7
 1st molted, brown, black
 shiny a few white hairs
 1st molted May 2.4 mm

THURSDAY, JULY 13, 1876. 62

1st 2nd Papilio
 Troilus on sage of as.
 (A. sebacea)
 Green cat on fern.
 2 aretias of figwood
 (not virginica wood)

Lycaena, Miss Brown
 1st woodline cat. 1st
 [Alfira 8-maculata 84]

1st molted, 1st molt, white
 1st molted, 1st molt & 1st
 1st, 1st, 1st, 1st
 Hair as before, 1st
 1st, 1st, 1st, 1st
 white. Molt May 13 1st as
 before, slightly increased

FRIDAY, JULY 14, 1876

2 Feather winged
moths came out
Hameis pschiffus
among others.

Lysocuse - Mrs. Liggins
and Woodbine cat. (from
Shed bed 3.5)

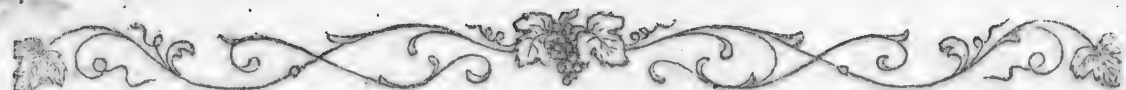
W 3.2 ~~unhappy~~ Body black as
before, warts & hairs same
but tufts not little higher
than other hair which
is all tipped with white
not 1 July 23. Not black &
shiny. Lat. in - 1/2 in. at
N - 1/2 in. pale line to
center of 1/2 in. W. 1/2 in.

SATURDAY, JULY 15, 1876

Feather winged moths
came out.

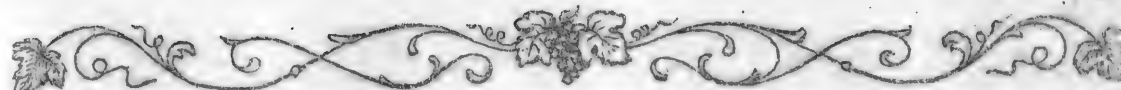
Furry yellow cat. came
out. Red bug with black spots

Body black, white hair white
warts black, hair same, but
tufts not little higher
than other hair which
is all tipped with white
not 1 July 23. Not black &
shiny. Lat. in - 1/2 in. at
N - 1/2 in. pale line to
center of 1/2 in. W. 1/2 in.
Coco. 5 of 71



SUNDAY, JULY 16, 1876. 52

Both Hamais (Meliopha)
 caterpillars are chrysalis.
 Both were on yesterday.

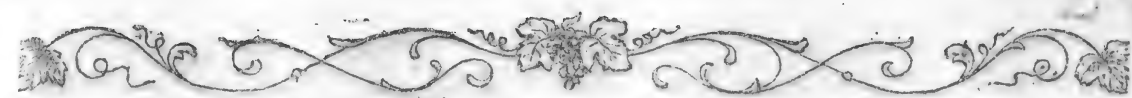


MONDAY, JULY 17, 1876. 52



TUESDAY, JULY 18, 1876. ⁷²

Peperomia *Antioquia*
are elongata



207

WEDNESDAY, JULY 19, 1876. ⁸²

Arctia *Virginica* *spun*



THURSDAY, JULY 20, 1876. *12*

Some
Papilio Asterias are
chrysalids)



FRIDAY, JULY 21, 1876. *52*

~~Arctia Texana~~ spm.
~~A. caerulea~~ spm.
(July 23)

SATURDAY, JULY 22, 1876. 12

Got 20 *Eudamus litigiosus*
californicus on vine.
Got 10 *Papilio troilus*.
Got 1 *Papilio asterias*.
Got egg on *Saccharum*.

SUNDAY, JULY 23, 1876.

Got *Actia lestor* and *A.*
isabella sp. on
Several *P. Asterias*
are chrysalids.
(Got 2 cats on woodbine
Eudamus *krata*.
Got some *Euchaetes* *egle*.

210
MONDAY, JULY 24, 1876. 12

Papilio Asterias chrysochloa
Argyria leucostigma
made cocoon.
He was from Mayana
falls.

211
TUESDAY, JULY 25, 1876. 12

Manis Prehispans
came out.

Argyria leucostigma is a
chrysalis.

Black Spring Hunt
Lucy got is a chrysalis.

2 *A. Virginia* ^{make} cocoons.

Eggs on poplar ^(July 2) hatched

Got 1 pale green spring
striped obliquely with
white on the sides.

Got 1 like it yesterday

Heinrich brought 1 like it
damaged, the day before.

Got female *Lucia*

Philodice while laying

eggs. Brought home

213
WEDNESDAY, JULY 26, 1876. 81

Put 6 little caterpillars
of *Papilio Troilus*
back on the susan
and got 1 larger one.

Papilio Asterias

214
THURSDAY, JULY 27, 1876. 82

Danaus Archippus No 2
came out. Kid's spread out
green spring (2nd good 1)
entered the ground
I got him today on
the sand hill.
Got 1 *Papilio Troilus*.

made chrysalide.

214
FRIDAY, JULY 28, 1876. 82

Got 3rd good Green
Spring at Mrs. Asher's.
Butterfly net made.
Caught ^{male} Papilio Zurnus
and Melitaea Phaeo

215
SATURDAY, JULY 29, 1876. 82

Went out for butterflies
with net made yesterday.
Caught several, among
which were Argynnis
Aphrodite, Eudamus
Cathylus and Hippoc-
dina. Hope.

SUNDAY, JULY 30, 1876. 22

5 *Papilio Asterias* came out.

6 ang. 1st 1 good *P. Tumnus*

(3:15 p.m. Let 2 male

P. Asterias (clipped). go.

(3:40 p.m. Let 1 male

P. Asterias (clipped). go.

Last *Asterias* became chrysalis

MONDAY, JULY 31, 1876. 22

Papilio Troilus chrysalis

6 *P. Asterias* out (not clipped)

6:30 p.m. Let 4 *P. Asterias* go (clipped) 3 male 1 female.



Lot 1 Eudamiae litigiosa cat.
 " 1 Euclyptus grape
 3:20 pm 1 male P.H. (clipped)
 Noted Leatella (spun
 this year / came out
 6:45 pm. 2 male A.H. (clipped)
 3 female A.H. came out
 Long W. at the black
 pencil 4 P. L. uncut, 2
 Aggymia sp. cut in 6
 + 87% uncut - one last night
 2nd day cut 1 L. uncut & after
 Lot 1 Lophocampa caryae
 Got green cat, spotted
 with black, large head
 holds up his hind
 feet, eats dipterous



8:30 a.m. 3 female PA (clipped)
8:45 a.m. 1 male PA (clipped)
9 a.m. 1 female PA (clipped)
4 p.m. 2 male PA (clipped)
Got 1 red Philamphus
Hemion in the kitchen
Got at the track 1 water bug
Got 1 cat. Eudryas larva.
2 cats in the ~~Ex~~ Panamatrix
without red spots on back
Some eggs on wood line.
7 Papilio Pezomachus came out

THURSDAY, AUGUST 3, 1876. 82

6 a.m. 2 male & 2 female
P. Asterias let go (clipped)
Got 1 *Orgyia Lineostigma*
2 p.m. 2 male P. A. (clipped)
Got across the river
1 *Lycena Pomponia*
with notch in wings
1 *Papilio* of a new kind
2 cate *Orgyia Lineostigma*
1 little green spring
10 *Papilio Asterias* came out
7:10 p.m. 1 female P. A. (clipped)
Mother found a caterpillar
of a leaf-roller which
I think is *Leptopachia*
Americana

FRIDAY, AUGUST 4, 1876. 82

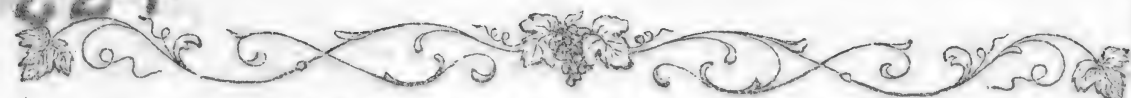
(Yesterday)
8 a.m. 4 female P. A. clipped / let go
Orgyia Lineostigma out
2 *Chorocampa* / a pamphlet
2 *Arctia Virginia* out
12 m. 2 female P. A. (1 clipped,
2 cate. of *Chorocampa bellwida*
p.m. 1 female P. A. (clipped)
6 female *Papilio Asterias*
came out. 1 not spread.

SATURDAY, AUGUST 5, 1876. 82

(just by stage)
8:15 a.m. 2 female PA (clipped)
Papilio Lirius 2, chrysalis
Lappet Caterpillar spun.
1:30 p.m. let go 3 female
Set male 1 female (clipped)
Set 3 more cats. Papilio Lirius
5:15 p.m. 1 female PA (clipped)
5 Papilio Lirius came out.
Set 1 Vanessa Antiope cat.

SUNDAY, AUGUST 6, 1876. 82

9:15 a.m. 1 female PA (clipped)
Vanessa Antiope made chrysalis
Orgyia Leucostigma 2 spun
3:30 p.m. let go 1 female PA
(clipped) not well spread out.
(could not fly)
Set 1 chrysalis of female
Orgyia Leucostigma
Set 1 cat. of Vanessa Antiope
(3.000)



MONDAY, AUGUST 7, 1876. 82

let go
 1 female 1st (clipped)
 2 blue-crowned Parrots
 1 male 1st (clipped)
 2 Arctic Larks came
 out, male & female
 (common)
 Vanessa Antiocha w2, Chrysa



TUESDAY, AUGUST 8, 1876. 82

WEDNESDAY, AUGUST 9, 1876.

8:15 A.M. 1 male *P. about*
 with from brown ant
 with green neck arising
 at legs is out.

Set across the river
 Lanius Pchiffus,
 Nymphalis lineipes,
 Heteropterus marginatus
 Set Nymphalis Epluaton
 but he escaped.

THURSDAY, AUGUST 10, 1876.

Perle caught a slightly
 battered Nymphalis ^{lineipes}
 1 female *Oryzia leucostigma*

FRIDAY, AUGUST 11, 1876

Oryzia Leucostigma
no 3 chrysalised. female
Arctia Isabella n.b.
(See Aug 3) *S. Americana*
is a chrysalis. ^{some time} has been so
I have a cat, looking
like an arctian. He is
brown with a black head.
Light stripes on his side.
Brown hair black
on his head & tail spread-
ing from waist. Top
of 10th segment pink

SATURDAY, AUGUST 12, 1876.

Got 2 *Papilio Troilus* cats.
Saw a *Papilio Troilus*.
Found a cat. on locust.
Got 1 *Saturnia* cat.
Got black & red arctian B
Got 1 *Papilio Troilus*, green

SUNDAY, AUGUST 13, 1876. ~~1876~~

Got *Daturia* 20 (no 2)
much for caught
Papilio *Thyris* 1 tail gone
Got 2nd *Apotele* American
Got 4 *Ceratocampa* *Regalis*
Got 3 *Sciatonia* 4-cornis.
Got 2 small cats. at W.

MONDAY, AUGUST 14, 1876. ~~1876~~

Got, in Boston, an
awful lot of cocoons
2 batches of eggs of *Orgyia*
Leucostigma.

22 3

TUESDAY, AUGUST 15, 1876.

229

WEDNESDAY, AUGUST 16, 1876.



THURSDAY, AUGUST 17, 1876. 82

Got, in Boston several
little brown & yellow cats.



FRIDAY, AUGUST 18, 1876. 82

Got a Vanuatu Antelope
Got

SATURDAY, AUGUST 19, 1876. 82

Got 2 cats *Attacus Luna*.
 Got about 8 cats. at
 Wicks. They were bluish
 white. Head, legs, & tail
 yellow, 6 black warts
 on 1st ring, on 2nd
 & 3rd rings 2 long 3rd
 warts, on 11th ring 1
 long yellow wart. (yes)
 Are they *Attacus Promethes*?

SUNDAY, AUGUST 20, 1876. 82

Got 9 *Attacus Promethes*.
 3 cats of *Papilio* ^{*Luna*} on ash

MONDAY, AUGUST 21, 1876

Ed. in Water co. 5 h.
 Knapp, 3 Argynnis
 Idalia, 3 A. Bellona,
 1 M. Ephestion.

Got 2 caterpillars. Color grey,
 on 5, 6, 7, 8, 9, 10th rings
 black dust of hairs
 out, hairs on side
 of body & neck, ^{brown velvet} red, on
 neck, 4 green spots
 on each wing, striped
 with black lines,
 head & feet orange,
 black stem beneath,
 1/2 inch in length.
 Found on an ash tree
 on the mountain.
 Spatula anglica

See Aug. 27.

TUESDAY, AUGUST 22, 1876

Got 4 Spring Linn-
 guenaculatus 2 with
 cocoons of parasite on.

WEDNESDAY, AUGUST 23, 1876. 82

Got 3 *S. Luriquema* ^{latr.}
 1 with cocoons on him.
 Got 1 *Attacus Blythesma*
Saturnia cl. ^{latr.}

THURSDAY, AUGUST 24, 1876. 12

(B112 cont) On paper *Brachy-*
Anta Aug 8, 1890. ^{latr.} Red wider
 than high, W 3.4 mm round
 greenish white, 2 rows of
 antennae white, eyes black.
 Body black, flattened a
 little ventrally, joint 13
 slightly notched. Trans-
 verse lines to seen with
 a transverse set of
 small round slightly
 elevated yellow spots ^{absent}
^{absent} on 6-10. Dorsally
 on 3 are 2 fleshy tubercles
 close together, colored red.
 On 5, 7 & 12 over the dorsum
 a pair above spiracle

SUNDAY, AUGUST 27, 1876. ~~82~~

(1) mountain cut. became
chrysalis without cocoon.
2) *Pyrausta ministra* chrysalis
chrysalis of mountain
cut. smooth & shining
7/8 inch long. 7 mm
of elevated dots on
each ring 3 of ^(the rows) ~~the~~
ring all around,
between which 3 are
2 larger elevated dots.

basal band (near to iii)
but reached up on 12
ash olivaceous as also
front part of 3 & 4 dorsal
On 5, 8, 9 & 12 a

MONDAY, AUGUST 28, 1876. ~~82~~

Got some *Glossa inclusa*
rounded velvety dark
brown patch slightly
obovate, covering i ex-
cept on 5 where it only
covers i; similar pale
olivaceous patch covering i on
6, 7, 10, 11 and 13, the latter
darken & elongate; a
faint V-shade, apex
backward, extends forward
from the spot on 12. Feet
all pale. Hair black
spiracles white, black ringed

TUESDAY, AUGUST 29, 1876. 82

Got some Saturnia Socia

" 11 S. Maria cats. on
wild cherry, "black co."

Got 11 Cerura borealis cats.

A Pygmaea* black long-
itudinally striped with
yellow, a few long
white hairs, Top of
head red; rest, and
lat & tail, black.

Back also on 11th segment

Got 10 D. univittata my sp.

Got some other cats.

*Acronycta madriliffa 4/10/88

WEDNESDAY, AUGUST 30, 1876. 82

Got some S. Socia.

Got A. Luna chrysalized

(BB119) Body faintly greenish,
more white with obscure
d. & s. & lat. white lines,
the 7th space considerably
overwashed with white. Vent
large (except if very small)
with considerable long white
hair. Spiracles faintly colored
not bright & rounded, shining
blackish yellow. A spot in
claspers and one like it each
side near clasper antenna.
A few white hair w. 4.5 ±
Prof blade, a little grayish

THURSDAY, AUGUST 31, 1876. 82

208 ~~after~~ 2 *C. Boualis*.
Attacus Promethia spum

a series of 4 white spots
 between i and i on 7-11.
 Feet and venter pale, anal
 plate white. Hairs large,
 pale gray; hair very long,
 abundant, white. No
 secondary hair. Spiracles
 white.

Charadrius deridens
 (See Parkland Forest In.)

FRIDAY, SEPTEMBER 1, 1876. 82

209 2 *Saturnia lo cato*.
Attacus Polyphemus spum

SATURDAY, SEPTEMBER 2, 1876. 82

The first *P. troilus* came
out today.

Got a sphinx on ash

SUNDAY, SEPTEMBER 3, 1876. 82

2nd Mountain cat
made a chrysalis
without a cocoon as
did the first

MONDAY, SEPTEMBER 4, 1876. 82

Some 20's spun.
 Chrysalis, found in
 cocoon on poplar a
 few days ago, is
 white with some black
 on it.

TUESDAY, SEPTEMBER 5, 1876. 82

Found a ^{21 of them} Luncade, on
 Wild cherry (No. 1) Description -
 4 1/2 in long, 1 1/2 in, color
 red, with brown markings.
 2 Short ~~beasts~~ on 3rd, 4th,
 5 11th seg. covered with
 prickles, 6 row of prickles
 on each side. 2 black
 near the head 6 tapered
 to a tail. Head is brown
 with 3 cates, 2 not below / is
 - spun. For description
 see Jan, 15, page 33 (No. 2)
 but some other cates.
 200 Pyraea I saw
 shaded with white. Head
 & feet red. (P. maculata (H))
 200 major

WEDNESDAY, SEPTEMBER 6, 1876. 82

Got some cats...

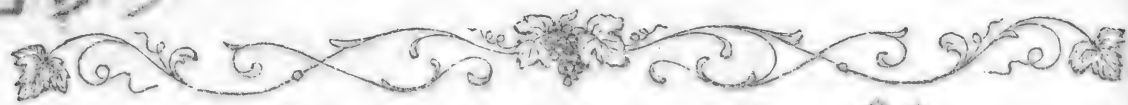
(B5104) Molt. Hd 3.6^m As before. Body as before, the dorsal green patch covers the whole - on 5 just to 13 and extending irregular to the end line but to space 14, containing 2 dorsal patches of a color spotted with brown on 5-7 & a little on 8 the other on 10. The green patch is a little irregular and mainly is bordered by the sides with an irregular dorsal line.

THURSDAY, SEPTEMBER 7, 1876. 82

Got some ⁽³⁾ flat cocoons on Wild's well No. 3. Two had come out.

5-7 & 8 on a brown shade
8-10, Sphacel. black with
green on 11 & 12. 230
magn on 12 is slight P.

253



FRIDAY, SEPTEMBER 8, 1876.82

Got some *Attacus Polyphemus*
var. cataphracta.

Got a large green
Ceratomia quadricornis

Got 3 more *Copaxa*
 of poplar cat, on ash.

254



SATURDAY, SEPTEMBER 9, 1876.82

Got some *Dorycampa*
Rubicunda cat. of W.

Got 2 *Ceratomia quadricornis*

TUESDAY, SEPTEMBER 12, 1876. 12

Set a lot of cats —
Lophocampa 363,
C. 4. cornis, *lemina* *Borealis*,
A. Polypheana,
L. leana, *beata*.
 Set a yellow moth
 spotted with brown.
 The shape of a *muricata*.

WEDNESDAY, SEPTEMBER 13, 1876. 12

Got cat. on lilac about
 2 in. long. Ground
 color brown with white
 on the sides meeting
 over the back. Covered
 with a few hairs, and
 the former skins shed off
 its head sticking to the
 hairs on its neck. The
 11th segment is humped.
 It has 16 legs. No. 7. {*leana*}
 Set 3 *Sphing* *lemina*
 2 had flies. There were
 208 cocoons on one!

THURSDAY, SEPTEMBER 14, 1876. 82

Got 1 Spring Cincra
 Got 5 Mountain cat.
 1 *Homocampa imperialis*
 2 ash tree sphinx
 Took 1 cocoon of *Arctia*
Pronothia on sasaparilla

18/05 on black oak, Aug 2
 1890. 1st. leg. in brownish
 only a little narrower at
 top than bottom, flat
 front and its sides, dorsal
 slightly in vertex & entire
 smooth shiny white.
 with 2 vertical dark brown
 bands mottled with
 yellowish, one on each L

FRIDAY, SEPTEMBER 15, 1876. 82

Got 1 large larva *Borealis*.
 Got a sphinx on ash
 and 1 (different) on maple.

1st. on front & side, dorsal
 unmarked, joined by a small
 Δ patch at vertex, then
 dividing the ground color
 stream then into 5 white
 spots w/ 2 sub-d along 2
 round centrally and a
 large spot covering and
 extending a little beyond
 1st. plate. Lateral, and
 antennae white, beneath
 sides some faint brown

18/05 50 collected water, then
 body high than

SATURDAY, SEPTEMBER 16, 1876. 82

First *Linnaea* "Rosa"
spine.

nothing, irregularly dis-
coloring the ground color with
spots, W 2 1/2 mm. Body
shagreened as in *Coelodactylus*
but not banded as it is
in 15 a dorsal process
long, pinkish brownish
subventral by 2 tubercles
on 12 a slight hood
conical lump bearing
2 tubercles. These appear
and the tubercles of
Coelodactylus and are all
present but minute at

SUNDAY, SEPTEMBER 17, 1876. 82

One of the cocoons of
pale cat came
out, male, with same
as Sept 12 (See Sept 11 K)
Gastrophysa Americana
came out. It is B.
Velleda & a female.
2 *P. Lurida* suspended.
Also some *H. Sena trid.*

Several ones rather more
distinct, each with a large
red dorsal, the least
one or 2 stretched as in
Coelodactylus. On the bottom
region of 2-4 except at
base of 2 and a narrow

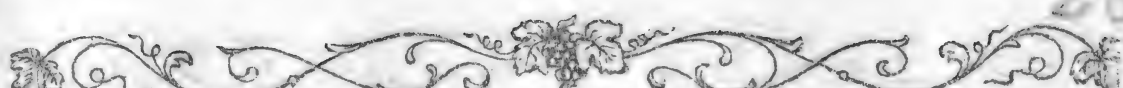


MONDAY, SEPTEMBER 18, 1876.

Male *Ectophasia*
bellida (No 3 found on
 Wilks well Sept 7) came
 out last night.
 Got a full grown *P.*
turnus cat.

1 *P. turnus* chrysalised

Insect found on 2-4
 var. very poor & almost
 obsolete. No 4, is a
 dark green patch,
 another in the dorsal
 of 6-13 (ad. sp.) on 5-7 ^{especially}
 partly replaced and
 mixed with brown
 and whitish markings



TUESDAY, SEPTEMBER 19, 1876.

Another female
poplar cocoon came
 out.

Got 2 green *Asp.*
 spotted with red,
 on elm.

1 *P. turnus* chrysalised

got a full grown *P.*
 in the side part of the
 sprout on 10, brown on
 a little and dark on
 length of the dorsal part
 the rest of the body in the
 dorsal & lateral region
 is whitish irregularly
 mottled with dark

WEDNESDAY, SEPTEMBER 20, 1876.

Get some snottas
I spread them out

Horn which pedon-
 10-15 mm, angled
 in a sub-30° to 50° angle
 3-curved, 2-4 in a line
 2-4, line looking like an
 green path, brown &
 sandy, branch on
 the spiracles on 2, on
 anal plate, substr.
 on 10 and ^{sub} ~~on~~ ^{on} 10 = 12. A dorsal patch
 of green color on 10, the
 dorsal processes are
 topped with brown but
 the tubercles whitish.

THURSDAY, SEPTEMBER 21, 1876.

packed all the cats,
3 chrys. for Boston.

Ante I can't to do all or 10
in round white spot
successive also a black
the other smaller ones
size of 7-8 & went 2-4
set on 7-9 waxy white
center - 6 & ventral
band 11-13 opaque white
this part is very smooth
with brown, abal with
2 curved brown lines,
n 10 obscured by the
heavy brown streaking
and both limited

(See Sept 6)

FRIDAY, SEPTEMBER 22, 1876.

Our chestnut & white.
July 15, 1890.

Stage 2. Larva. Body
black, yellowish green
with white, no. 10-12
pale, on a black
body greenish marked
with white, a faint
yellowish and blue
bluish color also broken
on all plates. A few ab-
lance. Length 16 mm
Stage 3.3 mm. as
not stage, molt July 15
and 5.5 mm. whitish green
minutely elongated.
no depression at summit

SATURDAY, SEPTEMBER 23, 1876.

Black on white ground
faint & labrum pale, jaws
black outwardly, black
inwardly. Body same
whitish green, somewhat
black on dorsum with
greenish black small
located on the spot
the ^{dark green} ^{small} ^{yellowish} ^{spots}
the ^{7th} ^{10th} & also on
10th. A yellow spot on
10th reaching entire ex-
tensity, and plate
white with yellow
pinules pale reddish
with red brown narrow
lines. [Another had
as in but stage
head

THURSDAY, SEPTEMBER 28, 1876.

larva white, dorsal
row of tubercles smooth
conical, those on the sides
very small, each with
a chain. I have not
much info. yet, a
dorsal & lateral row
of yellowish tubercles on
the sides of the body
not so prominent as
by some species which
shade together on the
obtain a continuous along
dorsal line.

Holt 4/16 Ht 2.2 mm

Feet dull greyish red
pale white. D. 0.1 mm

FRIDAY, SEPTEMBER 29, 1876.

larva of 22 mm
Holt 4/23 mounted with
spots of yellowish
tubercles, dorsal row white
on the sides of the body
from the ventral
each with a
chain. I have not a
dorsal row of tubercles
but the tubercles touch
the dorsal line. Each on 1 seg.
I have not a lateral row
of tubercles. Lateral row
of tubercles with dorsal
line, not a dorsal
line. I have not a
lateral row of tubercles.

SATURDAY, SEPTEMBER 30, 1876.

with narrow black border
 blue spots becoming white by
 exposure & red appearing
 margins of each
 The pupa of Aug 28, 1876
 1st 1st

bred by J. H. W. winter
 of 1893-4
Acronycta sp.

SUNDAY, OCTOBER 1, 1876.

On little paper at Lincolnton
 single but several in some
 places in house of Lincolnton
 & other. *Acronycta* [Eggs
 white 2-3 on apple leaf
 leaf with tiny. Hairs
 thick in base of ant. color
 ? ? ? me dark white
 ? ? ? of 1000 Hatch in
 hole in the top] Hel 2.2
 round, flattened in front
 depressed at the anterior
 black, shading into brown
 centrally, base of ant. more
 pale. Shiny, a few hairs.
 Body somewhat flat,
 a tubercle about middle

FRIDAY, OCTOBER 6, 1876

cleaned out Lophocampa
box. They have all
opened. We put the
cocoon in the box.

End of diary of
Lepidoptera 1872

SATURDAY, OCTOBER 7, 1876.

Grapha rana umbrosa. Full
grown caterpillar. Body
black, speckled with
whitish or with yellow
orange markings which
on the sides form a more
or less distinct light
range longitudinal
stripe. The spines are
orange red, or partly
yellow, except those on
the 2nd and last
segments which are
black. The feet and
head are dark red
the latter with 2 black
spines. Elm & nutt.

a yellow dorsal line

283

BB 12 inst

SUNDAY, OCTOBER 8, 1876.

BB 12 (light). Shape oblong with back elevated & rounded by 2 yellow lines & later green (black or yellow) yellow slightly spotted with yellow.

Limnæus personatus BB 12 (tail) shape same as above but furnished with a dark slightly reddish. The yellow is less distinct than in the preceding insect.

Black

There are probably 14 or more must be more characters.

Alder sawfly 284

MONDAY, OCTOBER 9, 1876.

Sawfly on alder (*Alnus serrulata*) June 16, 1890
 13000, the very first of long & strong, holes by these and curls by rods & thumb it if disturbed & held fast on joints 3, 6, 7, 8, 9, 10 & 12 small used in walking. Head round flat before, sharp black & little pale at mouth. minutely but sparsely pilose. W. 17 mm. Body with 2 rows of small elevations, the 1st row one larger one above base of each foot, a small black dorsal line not extending on joint 2 and a genuine row of linear black spots above bases of the legs. Thoracic feet unmarked with black. Length 15 mm.
 (See No. 1)

TUESDAY, OCTOBER 10, 1876.

A hymenopterous insect on curreant, shiny bluish green with yellow on segs 1, 11, 12. Head black, 6 prolegs. black and 3 transverse rows of elevated black spots to each segment, coalescing at the sides to three larger spots. Immaculate beneath. When about to enter the earth, it sheds to clear yellowish green marked with yellow as before. No black except the eyes.

WEDNESDAY, OCTOBER 11, 1876.

1. Black, yellow stripes
Collar spot yellow.
Heart & tail black.

Datanas ministra

2. BB52. all black
little stripe white

Datanas intermedia

3. BB54 More distinct
Hair cluster line yellow
Datanas depressa

4. BB84 Line yellow
Spot, heart, tail black
Datanas perspicua

5. BB81 Black, rows appear
white spots. Head, tail
& spot dark red
Datanas major

THURSDAY, OCTOBER 12, 1876.

6. BB76 Stripes yellow
Head spot & tank
light orange red.
Dutana palmii

1 Dorsal line, top of back.
2 Stigmatal line, on spiracle.
3 Subdorsal, $\frac{1}{2}$ between above.
Subdorsal space. Bet 1 & 3.
Stigmatal space. Bet 2 & 3.
Venter, much part of body.
Subventer, bet. spiracle
& base of legs.

(G. W. Cogswell, Com. Gen.
XII 105)

FRIDAY, OCTOBER 13, 1876.

Larvae & Data

*SF [unclear] [unclear]

" 12. *Teste de la...*

Large old oak tree

1

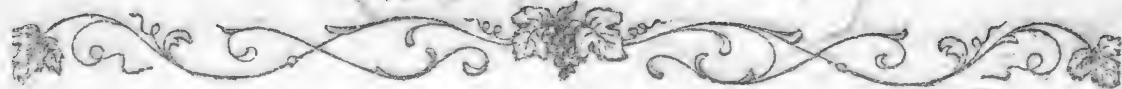


SATURDAY, OCTOBER 14, 1876.

Coleoptera on Elm tree
in Dougherty's garden July 30, 1888
Larva with 6 legs, yellow
with lateral black stripes
and black points on back
head & feet black
legs yellow, not past
to anal extremity
imago color yellow
with black stripes

Salicicollis

Xanthomelana



SUNDAY, OCTOBER 15, 1876.

"Disturbed foretail" Aug 27, 1888

Egg elliptical .8 x .4 mm
flattened on either side
^{minutely elongated}
roughened with little rounded
convexities, white. Laid
single, on in two or three,
on silken support of the leaf.
Hatched larva head somewhat
wrinkled, swelled at joint
segments which bear four
short conical processes. A
single one on 3rd ^{joint} segment.
Larva segment 11 bearing
a single stout ^{whitish} hair
color brown, blackish on
the sides. Head ^{rounded} black. Head
& body with thin, very short
whitish hairs.

Head
segment 11

(over)

MONDAY, OCTOBER 16, 1876.

rest near the edge of
the leaf on the upper surface
eating the upper leaf.

1 inst (Sept 11) instilled 4
to each segment. wing

yellowish green, a transverse line with
brownish on both
brownish on sides: 2
transverse processes on front 2
segment and 1 on ^{dorsal} 3rd

(Head brown, notched at
rough) Last seg. transverse
in a single prolongation.
Feeds on the whole of the leaf.

2 inst 8/30/76. Same. Feeds
on the whole of the leaf. H. 6?
1 inst Sept 11? (color same)

TUESDAY, OCTOBER 17, 1876.

even uniform brown but
lighter at the back. The lateral
line

✓ inst 187
granulation

4 inst (5 or 6cc) (Sept 11) Feeds on
the whole of the leaf. Head
lighter and a narrow
black line dorsal line

Feeds with a small process
the process on 3rd seg. rather
short but prolongation
not longer than 1/2 as long
as the body. Feeds on
as before and does not
move again. Feeds on
the whole of the leaf. Feeds on
the whole of the leaf.

WEDNESDAY OCTOBER 18, 1876.

the stems of the plants
which they resemble &
color.

July 2, 1889. *Viburnum acerifolium*

Head bilobed, lobes pointed,
brown paler laterally &
between the lobes, roughly
granulated, the granulations
white. Body purplish
brown. On joint 4 a
dorsal rounded process
pale brown with white
granulations; a darker
dorsal line. ^{a white} ~~On the~~
stigmatal bands on
joints 2-5 and on 11 & 12
faint; on sides of 6 to

THURSDAY, OCTOBER 19, 1876.

10 is a dark velvety
brown patch, rising
with curved outline nearly
meeting on the dorsum
on joint 8; the rest of the
body with white granulation.
Two faint white subdorsal
line on anterior segments.
Last seg. prolonged in a
single tail, brown ringed
with whitish and densely
covered with black spines.
Another specimen nearly
uniform grayish, top of lateral
plate only brown, hump
and brown, granulation
only slightly paler than body.

FRIDAY, OCTOBER 20, 1876.

4

Nov 3! Mature larva
and pupa. Last
set elevated black shiny
rooky reddish purple.
with 7 horizontal
black lines, one dorsal
and three lateral on
each side, the lateral
ones having the ground
color light blue between
them. Below these a
broad yellow band &
below a row of large
black spots. The
spots are very
large. Pupa shaded
with reddish and

SATURDAY, OCTOBER 21, 1876.

a little yellow just
above the lateral black
lines. The lines do not
extend beyond the 10th
segment, there being a
black spot on each side
of the 11th, and patch
in the last. An elevated
black spot on the 11th
and one on each side
on the 12th, interrupting
the upper of the 2
lateral black stripes.
Thoracic part red:
feet reddish outwardly.
Scenobius Argentina
2016 100

THURSDAY, OCTOBER 26, 1876.

Group 2: Tipped red on the
B. on the 2nd. 1st. 2nd. 3rd.
black, 4th. 5th. 6th. 7th.
black hair. 8th. 9th.
light brown. 10th. 11th.
black hair. 12th. 13th.
with 4 brownish. 14th.
the middle of the. 15th.
very. 16th. 17th. 18th.
don't the. 19th.

on the web under ground
till Feb. 1889. Pupa long &
skin brown. Malogeny and
darken blackish but, says
at base of thorax. 2 cremate
tips divergent thorn like
branch pointing inward
thoracic ground elevation

FRIDAY, OCTOBER 27, 1876.

6 June 12, 1915 - Head rounded
snout, partly bearded
skin & scales: pale
whitish, mouth pale, dusky
body scintillating, white
green: a lateral white
line edged blackish
above: on each side, an
oblique blackish band
marking back, the
and terminating in a white
spot on the snout. The
head part forming the
snout, the lower, there are
11 dorsal rays, 11
and 10 anal rays. The
faintly dusky on the

SATURDAY, OCTOBER 28, 1876.

larger than the other eggs.
An interrupted ^{dorsal} blackish
streak, with white faint
mottling with thin & the
short whitish hairs.

7 Nov. 1st & 22 Same. Head
slightly a reddish blackish
above. The head in
a really brown a
white line & stripe edged
with white on the
sides. Very fine. It
seems, thick hair between
the segments. All color of
the body is a darker
more whitish green,
less brownish. I am a

SUNDAY, OCTOBER 29, 1876.

Voluntary below. There
is a row of small whitish
dots one per seg. above the
9. 10. and another
circle one between the
dorsal & ventral.

Each dot of the same
greenish is about whitish
line. There 2 dots on 11th
seg. one quite conspicuous
5. 11. and black. It is
with the body that moves
the middle body a long
its length to the 12th seg.
or 13th seg. of the
abdomen. There quite
mouth it is at 23 mm
Entered. I got 3

MONDAY, OCTOBER 30, 1876.

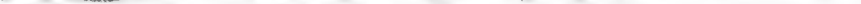
Pupa (May 89) Similar to *miniata*, punctured, wing cases wrinkled. Crenulae double, very short, the spines arising almost immediately from the body, 3 to each joint, the middle one much the shorter, almost obsolete making the spines divergent. Same color as *R. miniata*.

Datana galvina


TUESDAY, OCTOBER 31, 1876.

D. pudens. June 14, 1869.
On corn Florida
Head white mottled with ^{the} brown with 4 black spots, two covering the eyes and the other near the summit of the head. Joint white hair.
Body semitransparent, whitish flecked with fague white spots on the dorsum & more thick on the venter. Stigmatal space covered by a blackish shading more distinct anteriorly and a denser

903



46 B1534 (cont)

A decorative horizontal border featuring a repeating pattern of stylized flowers and scrolling vines. The design is symmetrical and ornate, typical of late 19th-century bookbinding.

FRIDAY, NOVEMBER 3, 1876.

8 13

gives a very peculiar look
 to the head. A few black hairs
 also overhang the head
 & extend from joint 13.

20 21

Subdorsal row of warts on
 joints 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13. Each
 with a plumbed white
 hair, appearing as if the
 ends were mounded. Inter-
 mixed with bristly yellow
 hair. & the upper subdorsal
 row the same on joints 2
 3, 4 & 5 but with less hair.
 The upper subdorsal row
 being obsolete on the pos-
 terior segments. On
 joints 5, 6, 7 & 12 the two

SATURDAY, NOVEMBER 4, 1876.

subdorsal row of warts gives
 large square black tufts
 of plumbed hair, mixed
 with white plumbed hair
 most at the sides where also
 a few of the bristly yellow
 hairs occur. Tuft on 7 has
 much less black than the
 others. Dorsally on joints 10 & 11
 are a pair of whitish ^{reticulate} warts
 with flattened tops correspon-
 ding to the red sides of
Corymba leucostigma.
 But of the 10 & 11 I do not
 know. Above the mouth
 Body pale whitish with
 a yellow, shaded & (Nov 5)

BB30B 1833 (cont)

SUNDAY, NOVEMBER 5, 1876.

with a semi-obscure light
dorsal line & broader
subdorsal band,
variegated by white
spots & streaks in the
subventral space. The
side esp. a broad trans-
verse light red band
continuously from the corner
venter. A narrow transverse
line. The dorsal
begin above the spine
but there is a row of
below the dorsal line
just at same place. A
broad row of large
yellow spots in the

BB30B 1833 (cont)

MONDAY, NOVEMBER 6, 1876.

subventral space &
between the dorsal
separated by red spots
Spines white. Venter
Feet black. Venter
transverse band reddish
BB30B 1833 (cont)
1876 of willow H. black & red
A mark and many ^{small} ^{white} ^{spots}
black, vent light orange
absolutely connected. Spines black
and transverse band. Head
dist. 5d (in S-V) white
found the latter straight not
hooked, containing orange red
line on hind end. White space
between S-V & 5d streak
with white also center and
a few ^{small} ^{white} ^{spots} ^{on} ^{the} ^{back}
Today May 11 98 H. albopuncta

TUESDAY, NOVEMBER 7, 1876.

marked diffusely with black, a dorsal band and stigmatal band indicated. Ten black pointed hairs on joints 2 and 13 as in previous stage. ~~Even the supra-stigmatal~~ ^{long} ~~on~~ ^{of} ~~upper~~. Lateral hairs ^{dark} long, whitish mixed with a few black ones under a glass seems to be mostly greyish. Other hairs same as in previous moult except that ~~the~~ joints 5, 6, 7, 8 are now large square brown ^{feet} tips mixed at the sides with white plumose hairs.

WEDNESDAY, NOVEMBER 8, 1876.

the apt on joint 12 still ~~as~~ ^{as} ~~pre-~~ ^{as} ~~viously~~ ^{as} ~~is~~ ^{as} ~~con-~~ ^{as} ~~spicuous~~ ^{as} ~~with~~ ^{as} ~~the~~ ^{as} ~~others.~~ ^{as} ✓
Cover of horn & thorax July 6

313 lacks the posterior tip & ~~the brown coloration~~

2 SATURDAY, NOVEMBER 11, 1876.

~~ends~~ of 2 short points placed side by side ~~to the~~ ~~the brown tips~~. Body ~~the head~~ green. the antecrossal space covered by ^{greenish} white but leaving the green color to appear as a broad band & an oblique line on each joint ~~from the base posteriorly~~ ~~upward & forward~~. The white color is continued down the sides nearly to the stigmata. A faint fine pale ~~stigmatal~~ ~~line~~ ~~space~~ white with brown ~~green~~ ~~black~~ under

Anal feet not clear 314

SUNDAY, NOVEMBER 12, 1876.

On joints 2, 3, 4, 5, 6 & 13 are indication of a ^{deep} ~~dropped~~ antventral line. Feet pale reddish, marked with 2 black lines. Thoracic green with black line. Food clear. (This spec. did not move but went in the ground small) ~~for~~ soon striking away any red parchment. Even after 1 tapering spine with a ^{curved point} ~~curved~~ ~~point~~ ~~at the~~ ~~end~~ ~~the~~ almost identical with this July 12 '90. Width head 2.6 mm ~~length~~ ~~of~~ ~~the~~ ~~specimen~~ ~~under~~ ~~the~~ ~~microscope~~

MONDAY, NOVEMBER 13, 1876.

in water nearly down to
 white. July 16, 1889.
 Head ^{grayish} green white
 2 pale green stripes
 edged posteriorly with
 a darker shade. Body
 pale green on joint 3 &
 4 sparsely distributed
 white dots, each sur-
 rounded by a fine black
 ring. Black spots on
 sides, found in the ventral
 & subventral spaces.
 3 even oblique lateral
 lines on joint 7-12
 the last one extending
 from the base of joint

TUESDAY, NOVEMBER 14, 1876

on over joint 12 to the
 caudal horn. Three
 stripes are half white
 & half ~~violet~~ ^{dull violet} shaded
 anteriorly with
 cauda brown green
 with a black stripe on
 each side, this being the
 continuation of the pos-
 terior oblique lateral
 line. Thoracic feet
 pale yellowish, tipped
 with ^{pinkish} ~~black~~. Spiracles
 brown willow (?)

Sought a small
 barrow

FRIDAY, NOVEMBER 17, 1876.

Head dark blue
gray, minutely sprinkled
with black spots, jaws
palpi & eyes black, the
bases of palpi & line at
mouth whitish. A number
of black hairs, 12 brown
body, 12 black, enlarged
black & a dorsal row of
small white spots with
smaller ones below
them and a few small
red spots. A narrow
orange & red line, present
from nares to forehead
and back to head
forming a blue band

SATURDAY, NOVEMBER 18, 1876.

A slender, pale orange
narrow bodied, and 5-8 ft.
blue. Venter a light blue.
Thoracic part black,
tinged with whitish
above. Ventrals pale
pale & orange. Dorsal
line from above white
more or less
from above to eye.
Cervical spot
a few black spots. It
is the same as the
next. A very black
line.

SUNDAY, NOVEMBER 19, 1876.

The eggs are laid in slits
on the basal half of the
leaf stem on under side
generally in a double row
Larva head .8 mm head
shiny yellowish black
Body dull ochre yellow
marked as in mature larva
but less distinct .26 mm
Larva head .5 mm head brown
eyes black, from which
blackish lines extend
to the front of the head
head brownish .25 mm
Head .6 mm head blackish
yellow and black. Tail
black spot, also brown

MONDAY, NOVEMBER 20, 1876.

of the head part with
blackish. Length 3 mm
Head .3 mm head black, body
as in mature larva .7 mm
mature head 1.7 See the top
often having slit like
holes in center of head.
Matured larvae with
holes in head, as in
the on head & around
the outside

TUESDAY, NOVEMBER 21, 1876.

Miller bagel Nov 22 1890
 Head round, partly with black
 in joint 2, pale yellowish
 marked with black
 as marks on a few black
 granulation 2 large round
 black spots separated
 by the central suture;
 a large spot on side of
 head covering & behind
 eye; a smaller one
 below it narrower
 situated 1/2 way up
 from the vertical patch
 near the pale suture
 from the black plate
 width of head 1 mm
 very nearly

WEDNESDAY, NOVEMBER 22, 1876.

Prothionia's flat and
 robust, a few small
 white granules
 rather smooth, black
 only on side of 12
 Central black
 1/2 way up, curved behind
 side of head covering in
 from a yellow vent.
 three round white spots
 on 12, 13 & 14
 below it 2 small ones
 a fourth small corner
 with black below
 subventral gold above
 bases of legs. All legs

THURSDAY, NOVEMBER 23, 1876.

have fine white horn
 these at the extremities
 very long. Rostr. pale
 yellowish black. Dorsal
 black band and
 similar sd on the
 latter seen by a line
 to be broken into ob-
 solem's oblique portion
 neither reaching the
 extremities. Rostr. D & D
 2 wants partly black
 partly pale brown,
 row 3 ochre. L. 12 mm
 younger as mature
 but black patch on
 eyes is absent, only a

FRIDAY, NOVEMBER 24, 1876.

small spots in D front
 and the 2 other marks
 are small, brownish brown
 eyes black. W. 7 mm
 black ^{pale} greenish yellow
 1. 2. wants black, the
 rest concolorous with body
 L. 8 mm sd line absent
 mature trunk head brown
 June 24 building up
 walls each side of
 1. 2. 3.

younger but same as
 as mature but have
 black. In a few
 days as mature.
 all same.

MONDAY, NOVEMBER 27, 1876.

but a little by and the
 middle (knotted) and
 bent, knotted again
 to the end and the

middle by with a thin

rather shorter in fact

the

feet are

known.

wine red, gradually streaked

(longitudinally) on the

sides with a brown &

pale ventrally. On 3 & 4

the streaks of brown on

the dorsum, confluent

in a dorsal band. On

is

TUESDAY, NOVEMBER 28, 1876.

line between the bases
 of the horns and on
 11 a large bright yellow
 dorsal patch. Length

7 mm. ✓ 10 mm. head brown

most 12 mm. head and

triangular, not in on top

dorsal view not. Most on

sp. 11 (1 1/4 -)

on 1 + horns. From cervical

spot a pair of brown spots

with small spots all

relative smaller than

top of the horns. Head

more brownish yellow

winter, brownish yellow

THURSDAY, DECEMBER 7, 1876.

Head shaped as before
 had brown the indented
 band in front of white
 plate white, palpi yellow
 the abd. shows a darker
 band posteriorly to the
 as before. ^{W 2.1-2.6} ~~Body~~ ³⁻
 spurred cerci brown
 red brown, spines
 & tipped with a hair
 only about $1\frac{1}{2}$ mm long
 Body dark green, the
 dorsal band yellow
 between the lines, the
 white, distinct. It widens
 posteriorly to joint 7, narrow
 abruptly to a point on 8.

FRIDAY, DECEMBER 8, 1876.

Nearly cylindrical, enlarged
^{arched} dorsally at joints 8 & 9.
 & tapering thence to 13
 Anal feet long, not
 used usually in walking
 begins up on 9, widens
 till where it divides
 into 2 parts which meet
 at ^{the} anal plate, each part
 an elongated oval of the
 ground color. anal feet
 white above, brown below.
 Three lateral brown
 streaks on the yellow
 feet oblique on joint
 4 & 5, narrow; second
 on 7 & 8 pretty on 8 & large

SATURDAY, DECEMBER 9, 1876.

extending from broad
band onto foot of 7
darken substantially;
third smaller on 10,
a little oblique, not
reaching with foot or
dorsal band. Some
minute black ^{spots} on
over the lateral region
distal 1/2 of 12 and 13.
Thoracic feet brown
abd with a green brown
band. Length 22 mm
[Proth 15, 2 mm] in
than wide, not flat at
vertex flattened in
front and at sides
marking much of vertex
and 2 lobes pointed

purplish brown, abo-
raced, the apex of
lobes black. In front
is a broad pink vertical
stripe a little irregular
in outline very narrowly
divided by the dorsal
central distance, of
white, dorsal part
pale black anten
then conical honey yellow
eye white, W. 3.3 mm
Cervical horns about
the same as represented
in a minute tubercle
bearing a single hair
but is smaller it

343 ^{terminated with joints at the end}
^{but these can be with drawn}
 MONDAY, DECEMBER 11, 1876.

joints 5 etc enlarged
 especially at 8 etc and
 slopes again to 13
 and feet held with
 straight, rather long
 or white dorsal along
 finely marked with
 dark brown and
 containing a few wider
 places at first 1/2 middle
 line, 11 is white with
 ant. on 12, wider on
 4, 5 etc and ends on
 8, 10, 11 or 9 yellowish
 widens, fades on 11
 the part converging on
 13 and passing over

344 ^{especially the upper part}
^{of the 2 last joints}
 TUESDAY, DECEMBER 12, 1876.

and feet not meeting. Body very green
 with many small black
 dots and 3 purple lines
 with patches with
 with crimson or pale
 crimson, ^{or clearer} 4 6 5
 especially 10, 11, covering
 spiracles on 5, 6, 7, 8, 9, 10
 large on 7 10 ^{*covering}
 feet on 7, not ^{reaching} ^{attaching}
 spiracle on 8. ^a
 dorsal band; dark
 on 10, covering spiracles
 commonly ^{passing}
 on the 11. and ^{passing}
 feet purple, ^{the}
 feet purple, ^{the}

* 20 Hel 3.8 1/2 on 6 7 8

WEDNESDAY, DECEMBER 13, 1876.

~~hatched~~ brown ringed
with black, and tipped
with brown. Spracles
yellowish centrally
broadly brown outwardly
~~and~~ yellowish
As the stage advances a
diffuse white sd band
appears on joints 8, 9 & 10
tapering at each end,
forming a continuation
of the widest ^{or only partly} of the
dorsal band but narrow
separated from it. Also
a narrow white dorsal
line encroaches on the
anterior part of the green

THURSDAY, DECEMBER 14, 1876.

patch formed by the fur-
cation of the dorsal
band on joints 11 & 12
while the anal plate
between the humeri is
brown. See fine lines in
the white dorsal band
become ~~green~~ greenish
appearing in a row
the ~~anterior~~ ^{posterior} of the body. In the ap-
proach of a dorsal patch in
dorsal color ~~and~~ ^{by} ~~confluence~~
is formed ~~from~~ ^{from} the ~~with~~
the white dorsal marks
above on joints 8 & 9 a
green ~~and~~ ^{and} on 11, 12 & 13

348 Fine very short hair from
 minute white spots with a lens

FRIDAY, DECEMBER 15, 1876.

~~a specimen which is a
 rather deep brown from the
 heat of the sun and color
 of 30 mm. from which
 for preparation the color
 yielded to a pale yellowish
 in the body July 7.
 The legs were marked
 with all yellow or cream
 color. Coon under pubes-
 cent or gray under surface
 of surface of sides and
 ground of segment, thin.
 Pupa cylindrical and
 slightly tapered. Cerebra
 in the first 6 segments from
 an elevated base.~~

349

SATURDAY, DECEMBER 16, 1876.

Heterocampa 7 1.1 1.7 2.6 (3.9)
do formosa (57)(8)(1.3) 2.1 3.3
 curving sharply outward
 and bent with several
 thin like branches
 made punctures. Color
 smooth, color dark
 red brown, shiny.
 Length about 20 mm
 width 6 mm
Swampy July 26, 7
Cat. No. 5166 *cpd*

Heterocampa
archata to Hesperia
 No - bindata! (1898)

359

[1875 52 cont.]

SUNDAY, DECEMBER 17, 1876.

Egg laid in batch 9360
 on under side leaf of hickory
 Cylindrical, the base a
 little hollowed, the top
 rounded. Pale gray, the
 top white with a round
 black spot in the center
 diam. 6 mm, Height .7 mm
 2nd stage 1 hd, c spot
 anal plate. 1 black spot
 black & shiny, 10, hd. .9
 Body pale whitish, with
 red brown lines, dorsal
 broad, 2 lateral & ventral
 the venter on 2-4 all
 red brown, leaving 4
 lateral & 2 ventral lines

5.9 1.6 2.7 4.3

350

MONDAY, DECEMBER 18, 1876.

9 around color, pale and
 slenderly well separated
 3rd stage 1 hd black &
 shiny, a few long white
 hairs. W 1.6 mm. Body
 purple red with 4 narrow
 obscure pale lateral
 lines. Feet, c-spot & anal
 plate black. Some long
 white hairs, especially
 from joint 2.

W 2.7 mm
 4th stage July 26 hd high
 than wide, the sutures
 deep, black shiny, minute
 punctured sparsely W 2.7 mm
 a few long white hairs
 Body livid, purplish

TUESDAY, DECEMBER 19, 1876.

red, with 4 lateral
faint interrupted narrow
white lines. Many
long white hair
C-spot, anal plate &
leg shining black.
No 5. Ad black
shiny, punctured, 14+4 1/2
labium pale W4.3mm
Body black, stripes much
narrower than inter-
vening spaces, ~~present~~ ^{absent}
except ~~on~~ ^{on} subtergites, white
hair abundant, white
growing from many very
minute tubercles.
C-spot, anal plate, feet

WEDNESDAY, DECEMBER 20, 1876.

8 spiracles black the
latter with a pale
central line. anal
represented by short
white & elongated, also
pale red line, ...
entirely ...
some of ...
Tibiae by ...
sides ...
lateral ...
pursues ...
... I don't ...
... with 2 ...
... spots. color
pale ...
black on head. ...
body ...
black ...
L. 12 W. 6.5mm

352: W^m BB72 cont (17-)

THURSDAY, DECEMBER 21, 1876.

[under 5 steps] Springbrook 1896
 July 17 diffused above. Hd
 blot ed, flat on front, lobes
 conical, pointed. Scamulata
 Dark brown granulate, ^{2 ap. tops} pale
 pale streak along a plate.
 Body brown wrinkled & gray
 mottled dark brown, gran. ^{gran. just behind}
 brown - (S. d. 3.) 5-13 is yellowish
 brown, the process on 4 and
 a space on 8 & 9 dark & velvety
 blackish brown. Tail can
 move. ^{movable}
 crenulate with pale
 spines as is process on 9
 11/12 July 22 Hd, velvety
 the tips conical, spinous.
 Scamulata, the granulate
 Not 202 (See Nov 16)

Name of described 354

FRIDAY, DECEMBER 22, 1876.

Content of caterpillar
 description.

- BB1 Parasa paterna
- 2 Acronycta amplexa
- 3 Euphyas daricis
- 4 Limacodes scapha
- 5 Euleia querceti
- 6 Heterocodes torrefacta
- 7 = 86
- 7 Selysophia anguina
- 8 Acronycta lobeliae
- 9 Adiantum
- 10, 13 Heterocampa montio
- 11 Tortricidea testacea
- 12 Limacodes fasciata
- 13 Pandora albivincta
- 14 Synchlora rubicunda

SATURDAY, DECEMBER 23, 1876.

- 15 *Uromyces*
- 16 *Merica bicolorata*
- 17 *Hemaris*
- 18 *Endopiza hypochlaria*
- 19
- 20 *Uromyces bacula*
- 21
- 22 *Epilobium* *bulbosum*
- 23
- 24
- 25 *nodata gibbosa*
- 26
- 27 *Uromyces nova*
- 28
- 29 *Graptis interrogationis*
- 30 *Uromyces oblita*
- 31 *Uromyces pallens*

SUNDAY, DECEMBER 24, 1876.

- 32
- 33 *Melitaea chaetona*
- 34 *Parorgyia clintonii*?
- 35 *Scopeloglossa montana*
- 36
- 37 *Chrysomela discolor*
- 38 *Thyridia pudens*
- 39 *Uromyces* *bulbosum*
- 40 *Heterocampa guttivitta*
- 41 *Hemaris propinqua*?
- 42 *Enallagma ribesiae*
- 43 *Melitaea chaetona*?
- 44 *Crococia ferruginea*
- 45 *Graptis var umbrosa*
- 46 *Uromyces concinna*
- 47 *Uromyces nova*
- 48 *Sphinx lucitosa*

MONDAY, DECEMBER 25, 1876.

49 = 59

50 *Hydrus* 2051 *Hydrus* Abbottii52 *Hydrus* 20

53

54 *Datana* *Angustis*55 *Epilachma* *acraea* (?)56 *Metoparia* *prostrata*57 *Lygia* *definita*58 *Limnobia* *inducta*59 *Mamestra* *confusa*

60

61 *Pyrausta* *stictica*

62 = 8

63

64 = 110

65

TUESDAY, DECEMBER 26, 1876.

66

67 *Hydrus* *undulata*

68

69

70 *Datana* *floridana* ^{*palmeri*} ?71 *Lygia* *conica*72 *Lygia* *rosea*73 *Heliothis* *phloxum* ?74 *Eugenia* *albivaria*

75

76 *Edessa*

77

78 *Mamestra* *adjecta*79 *Heliothis* *pulcherrima*

80

81 *Datana* *maior*82 *Harpya* *multiscripta**Harpya* *occidentalis*



WEDNESDAY, DECEMBER 27, 1876.

- 83 *Linanthus geminatus*
- 84 *Datura peruviana*
- 85
- 86 *Hesperis matronalis*
- 87
- 88 *Schizanthus liliifolius*
- 89 *Ipomoea androsa*
- 90
- 91 *Delphinium elatum*
- 92 = 91
- 93
- 94
- 95 *Schizanthus liliifolius*
- 96 *Calceolaria coccinea*
- 97 *Pyrola asarifolia*
- 98
- 99 *Edemna*



THURSDAY, DECEMBER 28, 1876.

- 100 *Euplexia hyperborea*
- 101 *Larache castralis*
- 102 *Angerona crocata*
- 103 *Apatele metiraga*
- 104 *Euplexia trilobata*
- 105 *Gnaphalium ligulifolium*
- 106
- 107 *Dasytheca cingula*
- 108 *Datura contracta*
- 109 *Datura Angustifolia*
- 110 *Heterocarpus binnatus*
- 111 *Datura major*
- 112 = 104
- 113 *Raphia frutes*
- 114 *Heterocarpus maritimus*
- 115 *Volatilis gibba*
- 116 *Notoloma stragula*

FRIDAY, DECEMBER 29, 1876.

- 117 *Apatela tritona*
 118
 119 *Charadrius deridens*
 120 *Collocalys unicornis*
 121 *Peckandia geminata*
 122 *Arctia antholea*?
 123 *Eacles imperialis*
 124 *Datana dreyeri*
 125
 126
 127 *Alypia octomaculata*
 128
 129
 130
 131 *Sphinx kalinae*
 132 *Agraulis vanillae*
 133

SATURDAY, DECEMBER 30, 1876.

- 134 *Zeilephila lineata*
 135 *Limnitis lorquini*
 136
 137
 138
 139 *Arctia docta*
 140 *Pyrausta carye*
 141
 142 *Phusia californica*
 143 *Cerura cinereoides*
 144 *Arachnis picta*
 145 *Triptogon imperator*
 146
 147
 148 *Hyphantia arca*
 149 *Nola byemalis*
 150

363



SUNDAY, DECEMBER 31, 1876.

151

152 *Eacles imperialis*

153 *Edema*

154 *Epianthes sciboria*

155 *Silphionota* ell.

156 *Endemus peters*

157 *Pieris monista*

(For *Apatelodes angelica*
see Aug 21.)

3



Perle, Dyak.

